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No. 1384

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## CAPABILITIES OF THE REAR SERVICES DISCUSSED

Moscow VOYENNIYE ZNANIYA in Russian No 7, Jul 78 signed to press 7 Jun 78  
pp 12-13

[Article by Col Gen I. Golushko, chief of staff of USSR Armed Forces Rear Services, Doctor of Military Sciences, professor: "USSR Armed Forces Rear Services"]

[Excerpts] Youths faced with military service know quite a bit about the services of our Armed Forces and about the branches of troops. But, who among them can clearly imagine what the term Rear Services means and what missions they perform? Let us look in more detail at this.

The Armed Forces are primarily people. And those to whom the motherland has entrusted the most modern weapons and combat and special equipment can accomplish their combat missions only when they are healthy and when they are provided food, clothing, and footwear in a timely manner and well. One of the main missions of the Rear Services is the concern for people and directly supplying them with everything required for life and work. But, this is only one aspect of the matter.

In order for the troops and naval forces to be constantly in combat readiness and to successfully accomplish the missions assigned to them during combat operations, they must have a continuous supply of equipment, ammunition, fuel, foodstuffs, medical supplies, spare parts, and other logistics items. The sick and wounded must be evacuated and unserviceable and damaged weapons, equipment, and other supplies must be moved from the front lines. The Rear Services employ all types of transportation to accomplish this--railroad, automobile, water, air, and pipeline--which must always be maintained in a serviceable condition, operated in the technically correct manner, and during wartime--protected from enemy strikes and rapidly renovated. In addition, a large number of complex measures must be carried out to provide aviation and the navy with proper basing.

Thus, the USSR Armed Forces Rear Services, relying on the capabilities of the country's economy, on the one hand accomplish missions involving

direct support to the troops and, on the other hand, create the requisite material and technical foundation for units [chast'] and formations [soyedineniye] in accordance with the missions that they are carrying out. Therefore, the Rear Services are not just simply warehouses, dining rooms, repair shops, bakeries, and other domestic services enterprises as several people think. The modern Rear Services are primarily special troops: motor transportation, road, railroad, and pipe-line; these are military doctors and veterinarians with their special institutions; these are automobile and airfield maintenance subunits [podrazdeleniye], medical aviation, and the auxiliary fleet. Serving in Rear Services organs are soldiers, sergeants, officers, and generals of the most varied modern professions with a high degree of military and special training.

Under contemporary conditions, the role of the Rear Services and the volume and complexity of their missions continue to grow. For more than three decades since the victorious conclusion of the Great Patriotic War, thanks to the concern of the Communist Party and Soviet government and to the selfless labor of our people, the continually growing capabilities of the socialist economy, and the outstanding achievements of domestic science and technology, the Soviet Army and Navy have changed unrecognizably.

The USSR Armed Forces Rear Services have become qualitatively new. They have been completely motorized and now possess modern transport, restoration, and other engineer and technical means which they employ comprehensively to supply the troops both at fixed installations as well as in the field, resupply ships underway at sea, to refuel aircraft in the air, rapidly re-establish communications and support the movement of troops, supply qualified medical assistance to the wounded, as well as accomplish many other missions linked with the reception, storage, processing, and supply of military products from the national economy under the most complex conditions to the troop units. All of this manifests itself especially clearly when large troop exercises are held, as was the case during Exercise "Berezina."

Having elaborated the operation with the goal of destroying the "Southerners" on the Minsk axis, the "Northern" command element took all measures to ensure that they would be logistically supplied, that is that the troops would have everything required for victory over the "enemy." Rear Services were included in this work. Numerous vehicle columns delivered ammunition, food, and equipment to the areas where the troops were deployed. Through the Belorussian forests to the units on the offensive, pipe-line subunits wove their "web" for supply of fuel. Skillfully employing powerful equipment, the road and railroad troops labored strenuously. Hospitals, mess halls, and portable baths were deployed. In a word, the offensive began when the Rear Services had completely satisfied the requirements of the troop units. And, they did this rapidly within the exact time assigned.

The intensity of the work performed by Rear Services units and subunits during the offensive also carried on with high intensity. Deploying along with the advancing troops, they continuously supplied combat units

with missiles, shells, ammunition, valuable foodstuffs, and refueled the combat equipment in a timely manner. They made an important contribution to the fact that, during Exercise "Berezina," the personnel of participating units honorably passed the important combat examination on the eve of the 60th anniversary of the Soviet Armed Forces.

A large detachment of highly qualified specialists, persons who know their business and who have assimilated modern equipment to perfection, work in Rear Services units and subunits. We have entrusted them with important elements of responsibility both in the sphere of material, technical, and medical support and in material and personal support to the troops and naval forces. Fully understanding that their military labor is directed towards the maintenance of high unit and subunit combat readiness, they are steadfastly working towards creation of favorable conditions for fruitful training and leisure time of our military personnel.

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## CIVIL DEFENSE TRAINING AND RELATED ACTIVITIES

### In the Novgorod Area

Moscow VOYENNIYE ZNANIYA in Russian No 7, Jul 78 signed to press 7 Jun 78  
p 20

[Article by Lt Col V. Nevskov, secretary of the party organization of the Novgorodskaya Oblast CD staff: "Exactingness"]

[Text] Our party organization sees its duty primarily in helping the leadership of the staff to ensure the timely and qualitative carrying out of all civil defense measures. For example, we talked during one meeting about what the role is of our communists in the CD training of party and soviet workers and economic leaders. They decided to provide by mobilizing inner reserves supplemental training to the leading and command element group during the courses. And this has already been done. In particular, according to general opinion the classes with the deputy executive committee chairmen of city and rayon councils of peoples' deputies were conducted in a productive manner.

During the national meeting there was a business-like discussion of the necessity to diversify and increase the effectiveness of party and political work within the civil defense system and--in this connection--the importance of an exceptionally careful selection of instructors for groups in which there are party workers. And we acted this way: Our most experienced communists headed those groups in which these categories of workers were studying.

Increasing attention on the practical training of formations and the population also forced us to analyze our reserves in this direction. During a party meeting the communists decided to take an active part in renovating the training material base without which, of course, it is difficult to talk about the students' acquiring practical skills. Our communists, relying on the help of party and soviet organs, are truly concerned about the creation of a training range in Novgorod and full-scale sectors at installations and about supplying oblast courses with technical training equipment.

It is clear to everyone that composite exercises are the crown for everything that we do during this or that stage. During them all shortcomings are distinctly revealed. This is why the party organization considers its primary duty to be checking on what our communists are doing in practice during their training at rayon CD staffs and at installations. We then discuss the work of the communists, as a rule, during our party meetings. We ascertain how they coped with their obligations, to what degree they showed initiative, and how effective their help was. We strictly inquire how they provided for the construction of protective structures at installations and what they took personal responsibility for.

I will cite an example which is characteristic of the activity of the communists and their concern for what has been entrusted to them. Next in line were several installation exercises in the city of Chudov. The experience of the economic leaders was still slight and we had to work a lot with them directly on the ground. F. Burlak, a staff worker, announces that in his opinion it is necessary to bring up without fail the question of these exercises during a party meeting in order to teach the others using their example. True, we at the bureau had already outlined in advance such an agenda. However, the fact of the communist's concern for the progress of the matter speaks for itself.

Somewhat earlier we had organized similar exercises in Borovichi. During a meeting the main speaker, staff worker D. Yaropolskiy, and all the other speakers spoke about the mistakes made and about the conclusions it was necessary to draw. From Borovichi to Chudov without a slip--that is how it should be possible to define the substance of our meeting.

What deficiencies did we have in mind? The main one was the substitution of workers at the sites with communists from the CD staff and the oblast courses. During the preparation for the composite exercises individual communists acted as specialists and as chiefs of staff and worked up documents for them. The desire was good--to organize everything correctly; however, alas, at an unjustified cost: people did not acquire confidence in independent work.

And more. Based on experience from several installation exercises our communists were convinced that it was insufficient to train specialists and leaders only in accordance with the program. That is why the comrades recommended during a party meeting that each communist on the staff be attached to an appropriate specialist at the installation in order to help him to draw up documents and correct them. At the same time, the thought persistently sounded that it was necessary to train the immediate executors on the spot. Let the comrades think, let them estimate everything themselves.

They made a specific decision. I will say without exaggeration that the chosen communists considered themselves mobilized for the period of the exercises--not only because they had a service assignment but also because they sensed their party responsibility. This to a great degree determined the effectiveness of the exercises at the installations in Chudov.

The party organization understands what important and what fruitful results checks on the state of civil defense at installations of the national economy, in which our communists participate, can give. To each of them we assign such tasks as: not to be limited by statements of facts and detected shortcomings but to constantly help workers at the sites to overcome these shortcomings more rapidly, prompt them in a competent manner on what must be done and how, and teach people to work rapidly in an organized way and with full effort.

I name with satisfaction such communists as V. Tsybul'skiy, A. Davidov, and the already mentioned above F. Burlak who is concerned in a friendly way. At the installations which these comrades checked they refer to them with respect as highly principled, demanding and fair workers who know how to transmit their experience tactfully and in an easily understood manner to those being checked.

The party bureau and party organization does not lose sight of question on moral, political and psychological training and on civil defense propaganda. All our communists are busy with this to a greater or lesser degree. They choose from the main ones the direction which embraces problems on psychological training, instilling steadfastness in all CD personnel, and strengthening confidence in the fact that it is possible to defend reliably against modern weapons. The numerous forms of propaganda work are used for this: lectures, articles in the press, CD days at installations, in rayons and cities, etc.

The party bureau was able to achieve significant activity in this task from all communists. However, I. Karavayev, the assistant chief for propaganda, and N. Lysanov, an instructor in the oblast courses, stand out the most. Comrade Karavayev is the author of a whole series of popular articles which--this testifies to their quality--are eagerly published by local newspapers. Moreover, he seemingly has under his control any sensible article on civil defense. He is concerned that it does not lie for a long time in an editor's briefcase. Concerning comrade Lysanov one can say that he is an enthusiastic lecturer. Many know him, a frontline aviator, in Novgorod as an individual full of enthusiasm for his lecturing work and--what is extremely material--one who performs it with a detailed knowledge of the task.

I will touch upon another--by no means of little importance--question which determines our successes or failures a lot--the mutual relationships of the party organization and the command element. It is good when they are correct and party-like in their basis. It is pleasant to admit that it turns out this way for us. The command element--especially Col V. Stannikov, the chief of staff--carefully listens to the voice of the communists and reacts operationally to their critical comments. We are lucky that the secretary of the party organization participates in the solving of all the important questions of the chief of staff.

In conclusion, I will say that we are far from complacent. We are aware of the fact that there are still deficiencies and bottlenecks besides minor ones: It is sufficient to cite the state of civil defense at some installations in rural areas which previously caused alarm. However, our communists are exacting, a sense of duty is inherent in them. In this is the guarantee that shortcomings will be consistently overcome and achievements will multiply.

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#### In the Khabarovsk Area

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[Article by A. Bayev, CD chief of staff of the USSR MMF [Ministry of Maritime Fleet] ship-repair plant, city of Sovetskaya Gavan, Khabarovskiy Kray: "The Personal Example of a Leader"]

[Text] The success of an installation CD staff's work depends a lot on how the enterprise director himself regards civil defense measures and what his level of knowledge is in this area. If the director judges these important matters superficially--"in general and on the whole", it is very difficult, of course, for the chief of staff to work with him. Here, mistakes and errors are unavoidable. There, where the director as the chief of civil defense regards its measures with understanding and knowledge, it is easy for the staff to work.

I will mention that the director of our Sovetskaya Gavan' USSR Ministry of Maritime Fleet ship-repair plant, Pavel Aleksandrovich Lukashevich, is equally concerned about production tasks and defense ones and demands in equal measure that all subordinates perform them in a combined manner. The director's knowledge of civil defense theory and practices is rather deep. Of course, Kray CD courses where he at one time underwent training helped in this. However, the main thing, I am convinced, is that he understands much in the self-training process.

The director personally conducts classes in the command training system with group No. 1 in which the installation's leading workers and main specialists are trained. He prepares carefully for each of them and reads everything new in civil defense literature.

Thus, prior to the class on the subject, "The Foundations of Civil Defense" comrade Lukashevich compiled a detailed lesson plan. Then, he asked me to prepare the necessary diagrams and posters considering the distinctive features of the installation. The director concentrated the students' attention on those questions which each chief of service specifically solves within the installation's CD system. He thinks out in detail what instructional methods principles can be used and when so that the students will better master the new material and will be able on their own to comprehend it and incorporate it into their work practices.

Everyone, who studies in the first group under the direct leadership of the director, trains his subordinates: some as chiefs of services, others as commanders of general purpose non-military formations, and still others organize the training of the workers and employees in their workshops (sections). Here, the plant's leading workers receive, if it is possible to express it this way, an appropriate charge of knowledge and instructional methods skills especially when the CD chief often forces them to act in the role of leaders of practical classes.

Lukashevich strives to have a leading worker thoroughly realize and master his civil defense duties and be able to carry them out efficiently and confidently. The director talks sternly to those who, alluding to the load of production work, hasten to postpone a class or conduct it haphazardly.

The director, party committee and CD staff strive to use natural disasters (forest fires, floods, etc.) as well as possible for the practical training of formations, the moral, political and psychological training of people, and their acquiring such military qualities as courage, steadfastness, resourcefulness, and sharpness. Many of our comrades display them, in particular, the scouts under A. Mikhal'chenko's command, the fighting men and commanders of the composite CD team under the skilfull leadership of L. Markevich, and the medical aid team members.

Communist Yu. Tret'yakov, a bus driver, recently had in a literal sense to undergo a test of fire. His vehicle with people aboard was in the zone of a forest fire. However, the experienced and fearless driver cut his way through the flames and brought his passengers to a safe area.

The non-military CD formations which Ye. Bereshchak, G. Osipov, N. Stepanov and others commanded waged single combat against a natural disaster for several days in a row under the leadership of deputy director A. Novgorodov. They were all victors.

We began the new training year grown wise with experience which we now use fruitfully to improve our skills during practical classes. The training material base has been significantly enlarged. This year we acquired a lot of instructional methods literature, visual aides, and technical training systems. At the same time, favorable conditions have been created for the self-training of students before each planned class.

A special day--the second Friday of the month--has been set aside for the training. On that day the administration, the party, Komsomol and plant committees, the staff, and the DOSAAF and Red Cross committees actively participate in CD measures, check on the progress of classes in the workshops and sections, help in working on and passing norms, and organize competitions for civil defense experts.

We introduced a good innovation--it is possible to say on the initiative of the CD chief himself--into the special training practices of the non-military formations. Last year Pavel Aleksandrovich called me and asked:

"Are we correctly using the allotted time for the training of the formations? Are we squandering it in vain without getting the necessary return?"

I had had occasion to think about this earlier. As a matter of fact, the training which we had planned for special training was not always going smoothly. We were not succeeding in getting rid of carry-overs and even derangements of the classes for this or that reason. During shift work, it was not always possible to assemble the people staffing the formations.

As if answering his own question, the director continued:

"Would it not be better for us to conduct special training using the course method? For example, a definite time will be given to the scouts for special training. They will pass their own program during the courses and they will conduct special tactical exercises."

"Would that not set production back?"

"Estimate with the planners, the workshop chiefs, and the specialists how much this will come to. And plan the courses so that they will take place not at once but at a different, an opportune time."

Thus, on order of the director the possibility of special training during courses was studied in detail. The plan developed was implemented by an order of the installation CD chief.

The first courses demonstrated the clear advantage of such an organization of formation special training. First, 100-percent attendance of personnel at classes was ensured. Second, the greatest effectiveness in mastering the programmed material, the quality of training in a specialty, and teamwork in the operations of formations were achieved.

And production interests did not suffer in this. Based on the results of the all-union socialist competition the plant was awarded the temporary Red Banner of the CC CPSU, the USSR Council of Ministers, the All-Union Central Council of Trade Unions, and the Komsomol Central Committee and was entered on the All-Union Board of Honor in the Exposition of the Accomplishments of the USSR National Economy. In civil defense we took first place for the second time among the installations of the Far East Order of Lenin Maritime Steamship Line.

Thus, it is possible to solve the most complicated civil defense problems boldly. Now, the collective of our installation is fighting to complete' the annual production plan by 7 October--the date of the adoption of the new Constitution of the USSR. It is possible to say with confidence that by this time we will fulfill the civil defense training plan and all its other measures successfully and with high quality.

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### In the City of Dnepropetrovsk

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[Article by Col (Res) V. Glushkov, city of Dnepropetrovsk: "On Staff Standards"]

[Text] The hall of the civil defense staff. Here, the plans for command post and joint exercises are born and various staff documents are developed. Here and now there is a large map on the table in front of me which shows the many colors of conventional symbols.

Yu. Bezrukavyy, L. Kleshchev and A. Ponomarets, staff workers, are bent over the map. Their faces are filled with concentration, their movements are energetic and accurate. I guess: Only a few days remain to the start of the coming command post exercise.

I am interested in the question: How are the officers and employees of the staff working up the graphic and textual documents: From which one of them is it possible to learn in this regard?

Here is L. Kleshchev. He is a thoroughly prepared comrade, an expert in everything. He already has solid work experience in the civil defense system and possesses high staff standards.

Or Yu. Bezrukavyy. One does not have to complain about the staff experience and knowledge of Yuriy Petrovich. He can teach a lot and can give a lot of advice. He has his own methods and skills in drawing up staff documents.

N. Ponomarets also works efficiently on the map and the other graphic documents. He became a skilled hand long ago in the ranks of the army. Now he is enlarging his experience and knowledge and giving them to civil defense.

The majority, it seems, of the officers and employees and CD staffs are like this. However, there exist others who are not on very friendly terms with staff standards.

Within the civil defense system, various exercises and staff training sessions are frequently conducted. Of course, it is clear to anyone that the success of this or that measure depends primarily on well thought out preparations and on the sense of responsibility in each officer and employee of the staff. However, let us add: It also depends on the careful drawing up of staff documents. Each document is not simply a sheet of paper covered with writing or a map with a plotted situation. It has its own importance, it plays its part at a certain time. If it is not carried out with high quality at the necessary time, one can pay dearly to avoid a blunder.

Once during a CD exercise the director required one comrade to report the situation which was taking shape. Confusion resulted: There was nothing to report from. The comrade had prepared the work map incompletely and haphazardly. There weren't even the inputs on the map which had arrived during the exercise. True he "got himself out of the situation"; although in a confused manner, he reported the situation from the map... of another comrade. But what if it had been an actual situation?

In my opinion, three interrelated items are interlaced in this example: the attitude toward carrying out one's work duties, the ability to work efficiently, and the quality of executing documents.

This means that under staff standards it is necessary to understand not only how beautifully, quickly and accurately the situation has been plotted on the map and how the documents are executed but also-- if it is possible to speak this way--devotion to one's job, conscientious and skilful performance of entrusted obligations, persistence in work, purposefulness, and personal discipline.

As they say it is not easy at first to work up various reports on one's own, to compile accurate and extremely concise information, to write drafts of orders, to prepare graphic documents, and to work on a map. But each document must be brief, written in clear military language, short and intelligible, so that there are no "peelings" in it and so that it does not cause a dangerous double interpretation.

Pavel Vladimirovich Semenov, a war veteran who traveled a difficult combat path and an experienced staff officer, often reminded us, his students, that before sitting down at a desk and starting to work, it is necessary to think and estimate properly--what is what, where to begin, and what to finish with. Think about this not only in the staff office but even when you lay down to sleep and when you wake up. Yes and write down your thoughts, otherwise they will fly away without leaving a trace. If you do not know the circumstances of the matter, the circle of events or the area of activity about which you must write, do not begin to write.

This particularly stuck in one's memory: Semenov had no patience with a lack of organization in one's work and with disorder. For example, he notices a piece of paper on a table and will invariably say:

"Remove everything that is extraneous. Leave only that on which you must work."

More. He was always smart looking, he set an example of neatness for everyone, he keeps a strict watch on the external appearance of the officers, he is polite. And all these are also staff standards.

It is necessary to add that in the era of the technological revolution when electronic computers, a mass of engineering equipment and lightly mechanized



systems are widely used in staff and information operations, the knowledge and ability to use these technical systems are required from civil defense staff workers.

Now when working on a civil defense staff, it is necessary to analyze the army service which has been left behind, to compare it with the surrounding situation, and to ask oneself often: Why is it this way and not this way? Was it not possible to do this a little bit better than it was done? Why did this worker, the neighbor on the right always execute each document diligently, thoughtfully and knowledgeably and why did he not spare any effort or time in doing this--but the neighbor on the left "burns" at each step? He is late in preparing a report for the higher headquarters and executes it carelessly.

It turns out that it is because the neighbor on the left does not have a clear knowledge of his duties and from this comes a scattering of resources, lack of organization and as a consequence--haste. As a result another slipshod document, compiled with serious errors, appears in a headquarters.

In a recent report Col V. Seleznev, the oblast CD chief of staff, among the deficiencies pointed out that the processing of staff documents required further improvement: an increase in quality and timely and accurate execution.

This is another reminder about staff standards. It is necessary to study and to train. When planning measures for the new training year particular attention was paid to the standards for drawing up documents in all CD staffs, their quality and completeness, the concrete definition of the periods for conducting different exercises and training sessions and for courses for the leading and command element, and the independent work of staff personnel.

The procedure for working up service documents and handling them has been defined by appropriate directives. This means; that if everything is to be "up to date" in a given work sector, it is evident that a staff worker must have a good knowledge of these directives and strictly carry out their requirements.

Let us say directly that there are still cases where this or that officer or employee on the staff or in the courses (all these questions are no less applicable for courses of instruction than they are for staffs) has a vague picture of the requirements in the mentioned documents. Such comrades (and we have them in rayons and oblast installations) continue to be satisfied with old baggage. They know all this when they learned it. However, they do not suspect, evidently, that time moves on and what they had mastered is forgotten. They begin to show flaws in their work. In my opinion, work is organized well where they remind officers and employees from time to time about directives and other guidance documents on staff work and on questions concerning service correspondence and the performance of clerical work and where practical classes of this nature with the taking of examinations are periodically conducted. This is far from being a minor question.

One of the important criteria in CD staff work is operativeness. It is very necessary when the "VT" [air raid] signal is given during an exercise and during training sessions when rescue and emergency recovery operations are being carried out. The summarizing of data, the making of detailed and well thought out decisions based on it, the efficient and accurate formulation of appropriate documents, and the timely passing of them to those who will carry them out--are these really not elements of staff standards upon which the success of the task depends so much?

It goes without saying everything will be fine when a staff document is executed in an efficient and interesting manner. In order to achieve this, definite time, patience, perseverance and--what is the main thing--the desire to carry out what has been planned within the prescribed period no matter what the cost, are of course required--and not only to carry it out but also to do it with high quality. Our century is the century of shortage of time, of an enormous and ever growing stream of information, and of extraordinary busyness. Is this or that installation or rayon staff worker really correct who, alluding to business, accommodates himself to issuing a business-like document, let us say, at the expense of the typist?

It must be confessed that we still have comrades on rayon and installation staffs who mark time, work using sources many year's old, from year to year copy old documents letter for letter, hurriedly insert fresh information between lines, and quickly run to the typist. They say, let her sort it out, I am too busy. And the typist "sorts it out." She thinks, she guesses, she racks her brain, she questions, and firms up what is what. And no matter how she tries, the "production" put out by her in any event will go into the wastebasket.

We have several workers on staffs who themselves type. Some people think this is shameful. It seems to us that it would be advisable to include in the circle of duties of a "staff officer" the ability to operate not only a typewriter but also reproduction equipment in general. CD staffs are now equipped with modern computers and various kinds of duplicating equipment which permit shortening quite a bit the period for working up complicated documents.

Introducing new work forms and methods into staff work, improving the quality in executing and formulating staff documents on the basis of this, and increasing contemporary staff standards will on the whole undoubtedly contribute to a further improvement in the entire civil defense system.

From the editors. Comrade Blushkov has understood, in our opinion, a very important question. However, the concept of staff standards embraces a wider circle of problems than those on which the author dwells. There is first of all the work efficiency of CD control organs, organizational work, its effectiveness, erudition, creativity, the ability to see what is new and progressive and to put it boldly into practice. The editors invite installation, rayon and civil defense course workers to appear on the magazine's pages on these and other questions.

In the Belorussian SSR

Moscow VOYENNYE ZNANIYA in Russian No 7, Jul 78 signed to press 7 Jun 78  
pp 24-25

[Article by Ye. Bludilin, assistant BSSR CD chief of staff for propaganda:  
"In One Key"]

[Text] For a number of years our civil defense staffs in Belorussia at all levels have worked in close contact with DOSAAF organizations. Their business-like cooperation on questions of military and patriotic indoctrination and publicizing civil defense directly in enterprises, on kolkhoz and sovkhoz, and at training points has recently become more purposeful and effective.

For example, the collective of the "Azot" Production Association enjoys great popularity in the city of Grodno. Successes in mass defense work have been achieved here thanks to the close coordination of the CD staff and the DOSAAF committee. G. Matviyenko, the chairman of the DOSAAF committee maintains constant communications with the CD staff and Komsomol committee. V. Vdovkin, the CD chief of staff, and N. Nazarov, the CD engineer, being members of the DOSAAF committee, conduct classes with pre-inductees on the CD program and firing training, and present lectures on military and patriotic subjects. In their turn, the chairman of the DOSAAF committee and the aktiv help the CD staff to prepare and conduct CD classes and to organize contests for medical aid teams, military sports games, and to pass GTO [Ready to Work for and Defend the USSR] norms.

The DOSAAF committees and CD staff of the Mogilevskiy, Order of Work, Red Banner "Strommashina" Plant imeni 50th Anniversary of Great October work just as fruitfully. The coordinated annual plan for mass defense work invariably includes questions on the military training of formations and the training of technical specialists. Each year the DOSAAF training point prepares dozens of amateur drivers, motorcyclists, and radio operators. As a rule, many of them are included in nonmilitarized CD formations based on their acquired specialists.

V. Tikhonravov and A. Tsvetkov, members of the DOSAAF plant committee, are commanders of communications group teams. They are not only constantly improving the skill of formation fighting men but also prepare amateur radio operators. In general, many DOSAAF activists are nonmilitarized formation commanders at this installation. Thus, M. Kravtsov, chairman of the DOSAAF organization of Workshop No.1, was appointed deputy commander of the rescue team, A. Yasyutin--commander of the composite CD group, A. Suchako--commander of Rescue Group No. 3, N. Vavilov--commander of the reconnaissance group, Z. Chudenkuva--commander of the medical aid team of Workshop No. 6, etc.

In the plant's club and workshop recreation and reading rooms, films on military and patriotic topics and civil defense are shown once or twice a month. Meetings with DOSAAF members and CD activists--veterans of the Great Patriotic War--are often held with the youth of the plant. The CD staff skilfully coordinates its work with the "Iskatel" plant tourist club which G. Karpenko, an active DOSAAF member and commander of the reconnaissance group of the rescue team, directs. The club conducts paramilitary trips for youth to places of revolutionary and combat fame and paramilitary games with the passing of norms in the GTO series.

The primary DOSAAF organization of the Order of Work, Red Banner "Komintern" Kolkhoz in Mogilevskiy Rayon (the chairman is N. Yeregin) and the CD staff of the kolkhoz (the chief is P. Grechikho) have achieved great successes when closely coordinating work. A good training material base has been created here for conducting joint work on the military and patriotic indoctrination of the population, military training, training the population and nonmilitarized formations on the CD program, and for classes on military technical types of sports. They have a House of Culture, a kolkhoz museum of combat and work glory, a stadium with 5000 seats, a rifle range, a training ground, sports motorcycles, rifles, gasmasks, radiation and chemical detection instruments, first aid kits, and other necessary items. Under the leadership of the party committee (the secretary is M. Kuz'menkov), the publicizing of civil defense and military knowledge is successfully carried out on the kolkhoz. Defense sports holidays are conducted annually. During them, medical aid teams, scouts, fire fighting teams, shooters, motorcyclists, and bicyclists compete. DOSAAF and civil defense activists arrange meetings of the population with heroes of the underground and the partisan movement, lectures, discussions of military and patriotic subjects, and showings of training films.

Socialist competition has firmly entered the life of production collectives. It is also playing an important role in improving defense measures. CD staffs, DOSAAF committees and trade union committees under the leadership of party organizations are regularly summing up competition results and acquainting all workers and employees with its results. All this noticeably increases the work enthusiasm of the workers in the collectives and attracts the broad masses of the people to participate in defense measures.

DOSAAF organizations are making an ever greater contribution to the preparation for and conduct of special tactical and joint installation exercises which are a serious check of the readiness of workers and employees to operate when the enemy employs weapons of mass destruction. For example, the Minsk Order of Lenin and Order of the October Revolution Tractor Plant passed such a test with honors. D. Protsenko, M. Kashayev and A. Kosmynin, activists in the defense society, headed by M. Koreshkov, chairman of the plant committee, effectively helped the CD staff workers to prepare for the exercise.

The chairmen of the society's workshop organizations conducted discussions with workers and employees and with fighting men of the formations directly

in the workshops. All the explanatory work was directed toward having each worker and employee know and perform his duties skilfully and with a complete expenditure of effort during the exercise. The members of the DOSAAF committee took an active part in preparing a full-scale sector and simulation systems. During the exercise the people operated quickly and thoughtfully under difficult conditions. M. Kashayev, L. Gulyak, N. Treputin, I. Ivanovskiy,--former frontline soldiers and DOSAAF activists--and others set an example of decisiveness and composure.

Various forms are used to publicize civil defense. They are conducted jointly with all military patriotic work. DOSAAF activists invariably participate in carrying them out--be it a review, a quiz game, a reader's conference, a broadcast over the local radio station, a lecture, a discussion, or a meeting with veterans of the war.

Contests and relay races with civil defense elements: marches in gas masks, overcoming obstructions, working on individual GTO norms, are invariably included in the program of trips to places of combat fame.

One of the mass forms for publicizing civil defense among the broad layers of the population is CD days, weeks and months. Under the leadership of party and soviet organs the mass information media and all public organizations including thousands of DOSAAF activists participate in these measures in addition to CD staffs and services. Thus, during the conducting of a CD month in the city of Polotsk more than 30,000 inhabitants of the city passed the GTO norms. Along with contests for various CD formations, motorcycles rodeos and cross-country races for motorcyclists were conducted. On CD days in the cities of Lida, Slonim and Smorgon' DOSAAF committees organized contests for model airplane builders, parachutists, radio operators, and automobile and motorcycle rodeos.

The participation of the city DOSAAF committee of the city of Grodno added a lot to and enlivened the program of the CD day. The actions of the DOSAAF sportsmen evoked great interest in the population, especially in the youth. Tens of thousands of individuals went to the GTO starting positions. The CD training point and CD and DOSAAF equipment were shown to the participants in the CD day. Motor boatmen and sportsmen- "fox hunters" competed. A great number of tourists were sent off on trips to places of combat glory. All this testifies to the growing capabilities of mass defense organizations and the effectiveness of civil defense propaganda.

The universities for the military and patriotic indoctrination of youth which have been created in many cities deserve attention. For example, in the city of Bobruysk the work of the university takes place under the slogan, "Youth, prepare yourselves to be skilfull defenders of the Motherland!" The university also publicizes civil defense along with military affairs. Lecture bureaus for civil defense which are being created by DOSAAF committees together with CD staffs have firmly begun operation. Now, they are operating successfully in all the large cities of the republic. The mass sports measures with pre-induction youth at military sports camps are also bringing an observable benefit.

A good practice--the work of the agitation brigades in the republic's rayons--has taken shape with us. DOSAAF and civil defense activists are included in their composition. They organize showings of CD films, give lectures, and conduct discussions on military, patriotic, moral and psychological subjects.

The combined work of civil defense staffs and DOSAAF committees is regularly dealt with in the republic, oblast and rayon press. In the published articles the authors share their experiences in the joint working of DOSAAF committees and CD staffs in preparing the population to defend against modern weapons, they relate how under the leadership of the party organs of the raykom, DOSAAF primary organizations and technical sports clubs and the society's activists are participating in strengthening and improving the work of all CD services and formations of the rayon, enterprises, sovkhoz, and kolkhoz.

As we see, the definite successes in mass sports work achieved by the joint efforts of DOSAAF committees and CD staffs are indisputable. However, considering the need to further improve the country's defensive capabilities, we are continuing to search for ever newer and more effective forms and methods for close coordination which will contribute to improving military and patriotic indoctrination and solving concrete civil defense tasks at national economy installations in the cities and villages of the republic.

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#### Secondary School Program Changes

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[Article by Colonel N. Vitrenko: "According to the Revised Program"]

[Text] During the 1978-1979 training year civil defense will be studied according to a revised program in the fifth grades of secondary and eight-year general education schools. Almost all topics have undergone changes: a change has been taken in the practical mastering of ways and means to defend against modern weapons. The time for studying the topic remains as before, classes have been scheduled for the second half of the year but in contrast to earlier years they are included in the schedule approved by the director.

Only initial information on the destructive effects of nuclear and chemical weapons are presented to the students, basically they reinforce earlier acquired knowledge of collective and individual protective systems but what is the main thing--the students improve practical skills and are acquainted with methods for providing self-and mutual help.

In the new program the volume and content of the material being studied is more accurately defined and the main questions are made more precise

and concrete. Thus, topic No. 1 is now named differently: "Protecting the Population Is the Main Task of Civil Defense." When elaborating on its content, the class director concentrates the attention of the schoolboys on sheltering the population in protective structures. They explain to the lads the norms of the CD section in the all-union physical training series of exercises, "Ready to Work and Defend" which they must pass.

The time for studying topic No. 2 has been considerably shortened (instead of three--two hours) and its title has been made more exact: "The Weapons of Mass Destruction of the Imperialist States". The students receive a general understanding of nuclear and chemical weapons. When talking about the destructive effects of a nuclear explosion--the shock, wave light radiation, penetrating radiation, and radioactive contamination, the teacher emphasizes the capabilities and effectiveness of protection. One hour is allotted to familiarization with chemical weapons. During the classes, the teacher emphasizes the aggressive nature of imperialism using posters and separate sequences from the slide show, "Nuclear Weapons".

Topic 3, "Protective Systems Against Weapons of Mass Destruction: is covered more completely. It consists of two sections: "Individual Protective Equipment" and "Collective Protective Equipment", four training hours are allotted to each. Filtering gasmasks, respirators, and the rules for using them are studied. The students carry out norms No. 1--putting on a gasmask, No. 2--putting a gasmask on an injured person, and No. 4--putting on a respirator. In addition, they are acquainted with very simple protective equipment for the respiratory system: cloth dust masks and quilted gauze pads. Norm No. 5--preparing quilted gauze pads--is performed. Just as in the earlier program, one class is devoted to equipment for protecting the skin.

The second section of this topic begins with a narration about the purpose and types of protective civil defense structures: refuges and radiation and very simple shelters, about the procedure for filling them up, and about the rules of conduct. Two lessons are conducted at the training range, in a refuge or the radiation shelter assigned to the school. Here, the construction and internal equipping of the refuge (shelter) is studied and norm No. 9-- taking shelter upon receipt of the "air raid" signal is carried out. The teacher also talks about adapting underground premises and the first floors of buildings as radiation shelters. The final class on this topic--familiarization with very simple shelters (open and covered slit trenches)--is the practical tracing of trenches. The best way to organize classes on collective protective measures is to conduct them at the patron enterprise or at the rayon base school for CD.

The time devoted to subject No. 4, "Rules for the Conduct and Actions of the Population Under the Threat of an Enemy Attack and on Civil Defense Signals" has been increased by one hour. Civil defense signals and the actions of the population upon their receipt are studied and actions on the "Air Raid" signal with a move from the school and taking shelter in

protective structures (or on the ground) are practiced. The lads are acquainted with the procedure and method of notification and with the actions of the population upon the signals, "All clear", "Radioactive Danger" and "A Chemical Alert."

The content of topic No. 5, "Self-Help and Mutual Help When There are Injured" (two training hours) basically remains as before. In addition it is required to know how to perform norms No 17--placing a rubber blood stopping band, and No. 18--placing a tourniquet using a scarf and other available items on the thigh (upper arm). The concepts "thermal" and "chemical" burns and the rules for providing first aid (norm No. 16--placing an initial bandage) are explained.

During all classes--in the classroom, at the training range or in the protective structure--the class leader is obliged to be concerned about instilling in his students high moral, political and psychological qualities and to fill them with faith in the effectiveness of protective methods and systems.

The changes and additions to the program were introduced considering modern requirements and the acquired experience in teaching this subject in schools. The suggestions of public education organs and CD staffs were also considered. I would like to point out that for the first time the most advisable instructive methods for conducting classes on each topic have been recommended in the program.

The program is accompanied by an explanatory note in which the requirements for planning and organizing the training process and work outside class as well as the responsibility of public education organs and CD staffs for instructional methods leadership and control over the preparation of the junior classes are stated.

Training slides and movies are listed in the section "Recommended Literature and Handbooks."

The task now is to bring the requirements of the revised program to all secondary and eight-year general education schools in a timely manner and for CD staffs and courses--to make appropriate changes effectively in the course training of class leaders and to help them to prepare for the start of the training year.

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### Forest Fire-Fighting Exercise

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pp 26-27

[Article by Engr-Col M. Bushuy: "The Training Site: A Timber Enterprise"]

[Text] Early in the morning a column of vehicles moved along the road in the direction of the Kuznetskiy Timber Enterprise. Scouts--experts in the forest fire service--moved in front. Behind them--the mobile control point. Further back, a tank truck, a forest fire apparatus (TLP-55), a rescue team, a mechanized operations team,, a technical repair team, and a medical station were moving. Breakdown vehicles brought up the rear of the column.

And so began the special tactical exercise on the subject, "Operations of a Reinforced CD Composite Team Together With a Forest Fire Team in Putting Out a Forest Fire." However, let us first of all relate what prompted the conducting of this exercise and how it was prepared.

... It is not the first year that forest fires have broken out in this area for various reasons, most of all because of the laxity of tourists, mushroom gatherers and hunters who have not learned to treasure the forest--a national resource. There had been such a fire, which caused quite a bit of losses, in the Kuznetskiy Timber Enterprise. A detachment which had been quickly scraped together from workers at the "Lesnoy" Sovkhoz arrived to help the foresters fight the fire. The friendship between the two collectives began at that time. Now, efficient non-military civil defense formations have been created in both. In order to improve their special training and to practice coordination they decided to conduct a joint exercise.

They began by reconnoitering the area of the coming operations. V. Kornilov, the director of the sovkhoz and the exercise director, and A. Kuznetsov, the director of the timber enterprise and deputy exercise director, headed it. I. Yeremenko and V. Sizov, the chiefs of the installation CD staffs, L. Kovalev, the man in charge of the sanitation group, and other specialists designated by the exercise director's assistants in the formation, participated in the reconnaissance.

For the full-scale sector which had to be set up during the preparatory period, they selected a burned out area in the Kuznetskiy Timber Enterprise where there had been a forest fire last year. The place was already known to many. Now is the time to use this burned out forest in quadrants 88, 89, 101, 102, 106, and 143 for training purposes and at the same time to clear it for new plantings. Shrubs border the burned out area. This means it is possible to create an instructive situation and to reproduce actual centers of fire (of course, observing safety precautions).

They decided that the most suitable place to work on such a long range method for localizing and extinguishing a forest fire as starting a fire break (annealing) was quadrants 106 and 113. It was recommended that the simulators reproduce a center of fire here so as to demonstrate visually the procedure for the practical application of this method. They outlined where it was best to construct support and defensive mineral zones and firmed up other elements of the situation.

The concept was thus carefully drawn and became the basis of the plan for conducting the special tactical exercise. Its main goals were as follows: to improve the practical skills of formation commanders in organizing operations to localize and extinguish a forest fire, to practice control and coordination questions, and to train personnel to carry out accurately the ways and means of fighting a fire.

A lot of attention was devoted to logistics and technical support. The formations were equipped with earth digging and fire fighting equipment: bulldozers, excavators, an ATSP-147 forest fire tanker truck, a TLP-55 forest fire apparatus (on a TDT-55 tractor), an ML-100 small forest motor pump, pack sprinklers, incendiary devices, a "Druzhba" motor saw, and manual fire fighting equipment (based on the table). In addition, fire extinguishing chemicals: sulfanol (at a rate of 1.8 tons per hectare of area enveloped by the forest fire) and OP-7 or OP-10 surface active substances (wetting agents) at a rate of 300 grams per one linear meter of local fire boundary.

The dry wood scraps, incendiary training mixtures and smoke pots were used to simulate fire centers. POL expenditures were set at 45-50 kilometers for each item of equipment.

After the plan was worked up (it was formulated graphically in the form of a chart), the exercise director conducted an instructional methods class with his assistants and the man in charge of the simulation group. He firmed up the time and place for the sequence of probable operations and the method for giving inputs. All the director's assistants compiled personal plans for themselves which then became the basis for the practical training of the formations, their fighting men and commanders.

The commanders of the composite detachment, L. Averkiyev, and of the fire fighting team, V. Averin, in their turn and in accordance with the

instructions of their CD chiefs held special tactical classes. The men mainly trained on accurately carrying out the principles for fighting forest fires.

... The exercise began. The march column approached the Kuznetskiy Timber Enterprise from the assembly area. There, one part of it (the technical repair team and the mechanized operations team) were detached and sent to the settlement of Mirnyy. I asked the composite detachment's commander what caused this. He said:

"They reported from the settlement that the forest was on fire in quadrants 87 and 89 from unknown causes...."

The simulators had done this on orders of the exercise director so that those being trained would immediately experience "not only puffs of smoke but also fire."

The main forces of the march column proceeded to the settlement of Lesnoy where a decisive battle against the fire was planned. The control point of the composite detachment and the exercise director was also here.

The signal men did not have time to deploy their radio set when a glow broke out not far away (also on the signal of the exercise director).

An observer reported: "Comrade commander! A forest fire in quadrants 106 and 113'."

One minute was required for the commander of the composite detachment to make a decision.

"Commander of the forest fire team, prepare to start a fire break. Commander of the rescue team in coordination with the forest fire team, ensure the creation of a support mineral zone and prevent the spread of the forest fire to quadrants 104 and 119..."

The exercise director and his deputy, observing the actions of the formation commanders, saw that their subordinates acted with teamwork.

Here, the specialists of the forest fire team, using incendiary devices, started the fire break. The crews of the forest fire units worked with full force. They started the motor saws, creating openings for the work of the heavy earth digging machines. They, skirting the centers of the forest fire, laid wide mineral bands which blocked the path of the fire. Fighting men with pack sprinklers and manual fire fighting equipment battled the fire, employing fire extinguishing chemicals during this fight.

The commander of the composite detachment asked the commander of the mechanized operations team: "Report the situation."

The latter answered: "Everything is O.K. with me. I am reliably repelling the onslaught of the fire on Mirnyy." But here Semenov's situation became complicated.

Semenov was the commander of the technical repair team. The simulators put up a complicated fire center for him so that he "would not doze."

The commander of the composite detachment orders: "Immediately transfer one of our groups to help Semenov."

"On the way!" sounded from the microphone.

Several hours passed until the fire created by the simulators managed to be put down and at the same time several quadrants to be cleared in the sector of the burned area for new plantings. During the critique the exercise director pointed out that the units of the composite detachment and the forest fire team acted skilfully, with a knowledge of their job and in close coordination. However, this was unfortunately not so in all links. In particular, the commander of the mechanized operations team ought not to have waited for instructions from the detachment commander when he saw that a neighbor was in a critical situation. It was necessary to immediately transfer part of the forces to help it. This was a serious shortcoming. It is necessary to consider it. It is impossible to joke with a fire.

The exercise ended extremely unexpectedly. Forester Pavel Vasil'yevlch Zhukov, the manager of this forest, arrived.

He thanked them: "Thank you, comrades! You have helped to reconquer another sector from the burned area. I hope your grandsons will be happy when the forest again begins to make a noise in this area."

Such can be one of the training versions in the special preparation of non-militarized CD formations for actions during a forest fire.

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#### In the Magadan Area

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[Article by Lt Col L. Varenik, chief of oblast CD courses City of Magadan: "Party Workers--During the Courses".

[Text] Every year, groups of party workers--secretaries of party committees and party bureaus at installations of the national economy--attend the CD courses of Magadanskaya Oblast. The courses are prepared in advance--two-three months--for the enrollment of this category of students. A training program is compiled. In doing this, the subjects, the location for conducting practical classes and who will conduct them are taken into consideration. Besides the course instructors, officers from the oblast CD staff,

the chiefs of oblast services and, of course, workers from the CPSU gorkom are invited. The program is invariably coordinated with the party gorkom and only then is it approved by the oblast CD chief of staff. A month before classes start, the party registration section of the CPSU gorkom finally approves the lists of students. This ensures their 100-percent attendance.

We have extracted lessons from past years' experience and now analyze each year the shortcomings and positive aspects of the classes with this category. The courses develop supplementary visual aids and mimeograph a list of functioned duties for the deputy political officers of formations, the political instructors of medical teams and the representatives of party committees on installation evacuation commissions, and the other documents which are issued to each student. We prepare in advance all the locations for the practical classes: at the industrial installation, in protective structures, and at control points. For self-study we select topical movies and a list of them is also handed over to the students.

Recently, a group of secretaries of oblast CD services party committees, departments and directorates were trained during the courses. The classes were opened by an introductory lecture on the tasks of party and political work within the civil defense system. V. Aksenov, the secretary of the Magadan CPSU gorkom, presented it. Then Col V. Shchemelev, the oblast CD chief of staff, spoke. V. Rekunov, a staff officer, and B. Mikhaylov, the senior instructor for the courses, conducted practical classes in an interesting and instructive manner. N. Kiselev, the secretary of the party committee at the Magadan machinery repair plant shared specific experiences in party and political work during a composite installation exercise. V. Abranov, the manager of a party gorkom section, summed up the results of the classes during the courses.

For the third year students will take a test on specially developed cards at the end of the course gatherings. It is taken with the help of "Ogonek" and KISI-5 control devices. In addition, a seminar is conducted with the group of party workers on the subject, "The Organization of Party and Political Work Within the Civil Defense System at Installations of the National Economy." The students demonstrate good knowledge during the seminar.

Practice has proven that giving students on the very first day of course classes the plan for the concluding seminar and self-study assignments for group and practical classes increases quite a bit the interest in the training and raises activity. Our method of timely preparation for the admission of groups of party workers has also justified itself. We have time to think out in detail the schedule of classes and to conduct modification briefings with the instructors. At the same time they also have time to prepare more carefully for classes during which the newly created visual aids and technical training equipment are now more broadly used.

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### In the Kaluga Area

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[Article by Engr-Lt Col Yu. Mazinov, chief of CD courses in the Kaluzhskaya Oblast: "Training Devices Help"]

[Text] The system for training the leading and command element during CD courses presupposes the broad use of technical training devices (various operating models, stands and trainers)

At the instructional methods council for the courses we posed the question: How should one explain to students the nature of the changes in the color of the detector tubes under the effect of poisonous substances on them. Under normal conditions it is impossible to demonstrate this process without a stand. It was recommended that instructors and experts on industrial training think about this. After some time we examined the suggestions which had come in. The work of Engr-Col (Res) I. Sazontsev attracted our attention. His proposal was adopted. An electrified stand was soon made.

Now, the students in the courses, when working with the chemical detection instrument visually see the process of change in the coloring of the detection tubes caused by phosphorous and organic OV [poisonous substances], phosgene, diphosgene, prussic acid, and cyanogen chloride.

The stand, "Procedure for Notifying CD Officials and the Population Using Technical Communications Systems" was developed for a training site. We advised the signal engineers on the oblast staff to demonstrate the passing of all CD instructions and signals on an operating device simulating them on a stand. Such a training device was made by A. Ugol'kov, I. Afanas'yev, and A. Lagutin. Using it, it is possible to follow the passage of signals from the central calling rack to the subscriber units which the ATS telephone equipment switches over to the stand's program. This helps students to understand the training material on communications and notification signals.

In the classroom for operational and tactical training we set up a special tactical training device in accordance with the "Recommendations for Creating a Material Training Base Complex for USSR Civil Defense Courses." However, not all have managed to make it as yet. Reserve officer A. Ivan'ko, an expert on industrial training and responsible for the class, successfully mastered the tactical and technical capabilities of this training device. Here, students practice reconnaissance questions, evaluate the training situation which has taken shape, make decisions on organizing measures to eliminate the results of the enemy's use of weapons of mass destruction, train on operating dosimeter instruments, etc. The class director carefully watches their actions.

Using the "Ogonek" examiner, we check how the students have mastered the material which they had studied during the week.

Those are only some of the directions of our work in the area of using technical training equipment.

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### Individual Protective Equipment Class

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[Article by Col S. Bystritskiy: "Working at Norms. Topic 3. Individual Protective Equipment"]

[Text] When training for this class the director draws up a lesson plan using the instructional methods handbook, "Organization and Methods for Conducting Classes With the Population on Protection Against Weapons of Mass Destruction," the booklet, "Everyone Must Know and Be Good At It," and other materials. It is desirable that students read in advance the appropriate sections in the booklet (pp21-33) and that more time be apportioned to working on the norms during the class.

One hour is allotted for the class. Therefore, it is recommended that a showing of movies and slides, lectures and discussions be organized during non-class hours on this subject in the agitation area and topical radio broadcasts be presented in ZHEK [housing operations office] recreation and reading rooms.

Of course, it is necessary ahead of time to be concerned with the location where a class will be conducted and to prepare gasmasks and respirators (it is desirable that there be one for each student.) In order to study the simplest protective equipment, a cloth dust mask (from a pattern), a quilted gauze pad, a sample of a set of clothing adapted to protect against radioactive and poisonous substances (it is possible to put the latter on a mannequin for clarity) are made.

Among the other items needed for the class are tape measures, a table for determining the sizes of the gasmask helmet facepiece and the dimensions of the PTM-1, and disinfecting means (a two-percent solution of formalin, denatured alcohol, or eau-de-cologne). Each student brings with him a piece of cheesecloth (100 x 50 cm), cotton wool (40-50 grams) needles, thread, and scissors.

On a piece of Whatman paper it is necessary to show the conditions for carrying out norms No. 1, 2, 4 and 5 (hang it in a visible place). In addition, the director trains one or two assistants for himself from the best prepared participants in the class.

The class can begin with a short explanation of the purpose and construction of filtering protective masks. When doing this, it is important to point out that industry is making civilian GP-5 and GP-5m protective masks for the adult population. The GP-4 m manufactured earlier can also be used. The DP-6 (for those older than 12 years) and the DP-6 m (for those younger) are designed for children. Recently, a more improved children's protective mask, the PDF-7, with a small canister has begun to be produced. Children up to one and a half years old are protected by the KZD-4 protective chamber.

Having satisfied himself that everyone has mastered the construction of protective masks, the director moves to the practical study of methods for fitting and rules for using them. How to select the height of the helmet facepiece is first demonstrated using one of the students.

Then, the students independently select protective masks from those located on tables (in disassembled form) and treat the helmet facepiece (facepiece) with disinfecting solution. Accompanying the explanation with a demonstration, the class director talks about the procedure for inspecting and assembling the protective mask. First, it is necessary to examine the canister, the facepiece, and the carrying case, paying attention to their working order. Then, the gas mask is assembled in the following sequence. The coupling nut of the GP-5 helmet facepiece (the connecting hose of the GP-4) is taken in the left hand and the canister is tightened up with the right hand so that there is no misalignment. After packing, the gas mask is brought to the slung position.

In order to check the airtightness of the gas mask, it is necessary to take the canister from the carrying case, tightly cover the opening in its bottom with the palm and exhale strongly.

The students repeat the actions of the director, and the assistants who have been instructed the night before check the correctness with which the operations are carried out. Then, having organized the training group into two ranks (one facing the other) the director demonstrated by the numbers the procedure for putting on a gas mask using the following sequence. He first takes off his headgear, takes the helmet facepiece from the case and grabs it with both hands at the thick edges (the thumbs on the outside, and the other fingers on the inside). Then he presses the lower part of the helmet facepiece to his chin, and having closed his eyes and holding his breath stretches the facepiece onto his head with an energetic movement of his hands up and back without allowing wrinkles or distortions. After this he exhales sharply. The students repeat these operations.



Before donning the GP-4 m facepiece, it is important to pay attention right away to the fact that each one has lengthened to the maximum extent (and then adjusted) the head harness cross straps, and loosened the head harness longitudinal and back straps. The facepiece is then loosely put on. The position of the rear head piece is adjusted by moving the buckles.

Having given the students an opportunity to train on their own on correctly donning the gas mask, the director begins to work on norms Nos. 1 and 2. The distinctive feature in carrying out the latter consists of the fact that they put a gas mask on another individual (an injured person or a child). It is advisable to demonstrate the procedure for carrying out this norm using one of the students. Then, time is allotted for training. It is especially important to instill firm skills in putting gas masks on young children.

The purpose and construction of R2 and R2d respirators are studied in the same way. If there are not enough respirators for everyone, it is possible to alternate the training on norms Nos. 1, 2 and 4. Let us say that one part of the students is working on norms Nos. 1 and 2, the other part is working on No. 4 (donning a respirator) under the control of an assistant.

When moving on to the simplest protective systems, the director explains the purpose of cloth dust masks and, using a table and a model, demonstrates how to prepare a mask of the required size. Then, he gives to each one a pattern which had been prepared earlier and for homework advises them to sew a PTM-1 on their own for the next class.

It is possible to make a quilted gauze pad quickly when working on norm No 5. First, a prepared unfolded pad is shown. Then, on instructions of the director the students place in front of themselves gauze, cotton wool, thread, and needles. Having spread the piece of gauze (100 x 50 centimeters) on the table, they, watching the actions of the leader, place a layer of cotton wool (30 x 20 centimeters) 1-2 centimeters thick in the middle. Then, they fold the gauze from both long ends, putting it over the cotton wool. They cut the other ends 25-30 centimeters from each side so that two pairs of laces are formed. The last operation is performed by a student trained earlier. The others observe.

After demonstrating how the prepared pad is put on, the class director orders:

"Everyone make and don a cotton gauze mask!"

Upon this command the students carry out the norm. In doing this the time is noted and the actions of each one are evaluated.

It is known that normal clothing and footwear protect the skin to a certain degree from radioactive particles, bacteriological systems, and droplet gasses. Clothing made of rubberized cloth and synthetic films, capes, raincoats, jackets, rubber boots, overshoes, galoshes, and leather and leather substitute shoes possess the best protective qualities.

However, the protective qualities of clothing can be improved if it is also made airtight: all buttons are done up, the cuffs of sleeves and the bottoms of trousers are tied with ribbons, the collar is turned up and tied with a scarf, the pockets are sewn up, and additional flaps, including chest ones are sewn to the sides. It is possible to wrap footwear with several layers of polyethylene or other synthetic sheets. All this must be demonstrated to the students on a mannequin or using a student who has been prepared in advance.

Next, it is recommended that methods to impregnate clothing with special solutions so as to give it more reliable protective qualities are practically worked on during the class. To do this, overalls which have been prepared earlier are placed in a bucket or tank. They pour in the special solution at the rate of 2.5 - 3 liters per set of clothing. To do this, they dissolve 250-300 grams of laundry soap powder and 0.5 liters of mineral or machine oil in hot water (60-70° centigrade). After kneading, a uniform soap and oil emulsion is obtained. They wring out and dry the clothing soaked in it. It is necessary to inform the students that it is well washed off using the usual method.

During the class it is necessary to point out mistakes in a timely fashion and to help eliminate them. During the critique one must without fail mention those who studied assiduously and those who carried out the norms dexterously.

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### Medical Team Training Discussed

Moscow VOYENNNYYE ZNANIYA in Russian No. 7, Jul 78 signed to press 7 Jun 78 p 30

[Article by P. Kurtsev, chief of the Directorate of Medical Defense Operations of the USSR Red Cross and Red Crescent Society Executive Committee: "We Are Summing Up Results"]

[Text] The USSR Civil Defense staff, the USSR Ministry of Health and the USSR Red Cross and Red Crescent Society's executive committee have carefully reviewed G. Tashchiyev's article, "Both Happiness and Grief...." (VOYENNNYYE ZNANIYA, No 12, 1977) and the comments on it, published in No. 6, 1978.

The question of the necessity to assign qualified medical instructors to medical aid teams was raised in the material. And so it is necessary to do. Public health organs have been required annually to assign in their orders medical workers to appropriate installations of the national economy where they will train medical team members and prepare them for competitions.

The question of replenishing expended medical supplies in the first aid kit is the most urgent one. Here it is necessary to be guided by the instructions and recommendations stated in the 1976 directive of the USSR Civil Defense chief, "About Improving the Equipping of Medical Aid Teams."

Of course, the question of a dress uniform for medical aid team members disturbs many. Is it needed or not? The writers of some comments (M. Gogolev and V. Vasilyuk) think that it is desirable to have a dress uniform only during republic, union and international competitions and to appear in the work uniform during competitions at other levels. The writers are correct. A sample of a common work uniform for medical aid team members has been designed by the Red Cross and Red Crescent Society executive committee. In the near future, the technical documents for this sample will arrive at locations through the central committees of the union republic societies.

The question is raised as to when competitions for medical aid teams must be held. There is only one answer: The competitions are timed for Saturdays and Sundays.

There is a categorical answer also to the question of who organizes and conducts the training of medical aid teams. Responsibility for their training is placed on CD staffs. Committees of the Red Cross and Red Crescent Society together with CD staffs and public health organs train the personnel of non-military medical formations directly on the spot.

For the training of medical teams and the conduct of competitions it is proposed to have training kits and to allow the simulation of several objects contained in them. As was already mentioned above, it is necessary to be guided on this question by the 1976 directive of the USSR Civil Defense chief. The procedure for replenishing expended supplies is explained in it and recommendations for creating training sets are given.

The organization of judging the competition of medical aid teams and medical aid posts troubles many comrades in places. They maintain: a common training program, which reflects a common approach to rating the methods of providing first aid during various stages of competitions, is needed for judges. In order to improve the level of judging, a common program for a one-day seminar for medical workers, acting as instructors and judges, has been drawn up by the Red Cross and Red Crescent Society's executive committee and the USSR Ministry of Health. This program has already been published and distributed to Red Cross and Red Crescent Society committees.

Some comrades propose permitting CD chiefs of staff at installations to observe the work of their medical aid teams in hotbeds and also be present at meetings of the judging commissions. This is motivated by the desire to adopt the experience of the best ones. However, this is forbidden by the "Regulation on Medical Aid Team Competitions" now in effect. Only the organizers of the competition can visit the work sectors of medical aid teams. At the same time, a group can be formed from CD chiefs of staffs if time and conditions permit. Somebody from the judging commission can conduct it in an organized manner through the stages of the competition. Representatives of installations are not able without an invitation to participate in meetings of the judging commissions which are summing up the results of the competitions or discussing disputed situations and protests.

Finally, concerning the involvement of experienced medical aid team members in conducting classes on medical subjects in the CD program with workers and employees. This is an interesting question and deserves attention. In a number of union republics, medical aid team members are widely involved in training the population, especially those not engaged in the production and service area. This is correct. Everything here depends on circumstances and the situation. However, it would be better if professional instructional methodologists conducted the classes on medical subjects.

Comrade Tashiyev proposes involving ambulance drivers in the training on providing first aid. There is no need for this since the training of drivers on the special first aid program is conducted in accordance with the

6 September 1972 order of the USSR Ministry of Health, "On Measures To Prevent Motor Accidents and To Improve the Organization of First Aid to the Injured."

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#### Moscow Area Training Results

Moscow VOYENNNYYE ZNANIYA in Russian No 7, Jul 78 signed to press 7 Jun 78  
p 31

[Article by S. Krasikov, city of Pushkino, Moscow Oblast: "There Is Such a Form of Propaganda"]

[Text] For the last two years Pushkinskiy Rayon has been considered the best in the Moscow Oblast in the condition of civil defense. Along with the rest, the training of schoolboys on ways to defend against modern weapons is conducted at a high level here. In particular, the experience of the annual senior class competitions on operating radiation and chemical detection instruments is interesting. The lads like these contests and eagerly participate in them. The organizer of this work is V. Garnaga, the CD chief of staff. I would like to talk about their conduct in more detail.

The rayon CD staff along with the rayon education section distributes the statement on the competition to the schools in advance. It defines the procedure and place for their conduct, the composition of teams, etc. The main purpose of this step is to deepen the student's knowledge and inculcate in them confident skills in working with the instruments. The content of the competitions is determined by the CD sections in the NVP program for ninth and tenth grades.

Up to 30 teams participate in the rayon contests and each one strives for victory. Much here depends on the preparation of the participants and on their militant attitude. Before leaving for the rayon competitions, the lads compete in intraschool ones between classes. Komsomol and DOSAAF school committees actively help military instructors to organize them. They graphically depict the progress of training for the competitions, designate judges from 10th grade students who a year earlier had taken subject No. 4, and worry about involving the "fans".

Of course, difficulties are encountered here and there in organizing the competitions. Not all schools, for example, have instruments available in sufficient number. However, as practice shows, this is not such a serious obstacle. Based on the specific circumstances, military instructors rely on the practical help of chiefs and on the CD headquarters of the base enterprises. For example, the CD staffs of local enterprises give missing instruments to the schools in the settlements of Lesnoy and Kudrenki.

The intraschool competitions are interesting because the participants strive to introduce something of themselves into their content. For example, such innovations as checking on the time to prepare instruments for operation, connecting power supply elements, or discovering hidden radioactive compounds were introduced in Sofrinskaya School with the approval of the military instructor, M. Aksenov, upon the initiative of the boys. In the Ashukinskaya Secondary School the pupils complicated the program with the consent of the military instructor, M. Nababiy--they competed in individual protective equipment. The special clothing, gasmask and gloves make work more difficult. They approximate it to combat.

Any contest is effective when it is well organized and genuinely interesting. Therefore, the introduction of elements, depending on swiftness, dexterity and sharpness, increases the spirit of competition. Military instructors, in their turn, complicate assignments using additional inputs and strengthen the emotional background of the contest.

Intraschool competitions reveal the best students who are then included in the composition of the composite team, ready to join battle with their peers. The selection of the best ones is a very widespread method for staffing a team. However, as experience shows, it is no less important to take into consideration the voluntary desire to join a team. From the number of aspirants to the composite team it is immediately evident in which school the most importance is attached to civil defense as an independent subject. It is very desirable that the lads do not designate but select themselves to a team from the ranks of the best. It happens that some pupils, very successful in civil defense, suddenly refuse for various reasons at the last minute to go to rayon competitions. Therefore, the military instructor of the secondary school in Sofrino is in favor of volunteering. He knows: It is necessary to inspire lads, and he invites them before departing for the competitions to a meeting with the team of last-years participants--the 10th grade students. They recall much that is interesting, share experiences, give advice, and call upon them to defend with dignity the honor of their school. It is not without reason that the Sofrinskaya Secondary School is always among the prize winners.

Rayon competitions are usually held in April at one of the schools. The chief of civil defense in Pushkinskiy Rayon designates the day in an order and appoints the judging commission from the CD chiefs of Staff of the best installations--people capable of fairly evaluating the level of the school boys' training. The five-scale system is used.

Over the years the organization and content of the contests have been improved. One time, for example, the teams from all the schools in the rayon were gathered together on one day--they satisfied themselves that this is not practical. Now, the competitions are conducted first by groups and the finalists are selected this way. There was a time when the composition of the judging commission included several military instructors; however this did not justify itself since elements of subjectivism in summing up the results unwittingly appeared. Now, all these difficulties are behind us. A correct procedure has been worked out.

An important question which concerns the rayon CD staff is how to make competition even more entertaining and to improve their propaganda aspect. To do this, they propose conducting them not at some school or other but in a public place--on a training ground or in a park. There is a certain propaganda and indoctrinational sense in this. Competitions with such a content are an effective form for the military and patriotic indoctrination of youth.

Last year, 23 schools participated in the competitions. A total of 18 of them received an average grade higher than "4". This without a doubt testifies to the growth in the pupils' preparation. The teams from Schools No. 1 and No. 3 in the cities of Pushkino and Klyaz'minskaya achieved the best results. They took on the average a 4.8 grade. Such high results are not accidental.

In Pushkinskaya School No. 1 questions on teaching civil defense have been examined repeatedly at party meetings and teaching councils. Much work has been put into improving CD teaching methods by military instructor A. Girayayev. Incidentally, last year not only the scouts but also the medical aid team members of this school were the first in the rayon.

It is significant that the results of the rayon competitions for school boys are summed up in a ceremonial situation. The prize-winning teams receive certificates and the best participants--the badges, "Be Prepared for the CD of the USSR". The rayon CD chief of staff expresses his thanks to the school collectives. The names of the best ones are put in the personal record. This year, USSR cosmonaut and Hero of the Soviet Union Yu. P. Artyukhov presented the certificates and cups to the winners of the competitions.

It is always possible to encounter school graduates, who have received a firm knowledge of civil defense, among the active participants in different rayon mass defense measures. After finishing school they remain in the ranks of military and patriotic propaganda and civil defense activists at their place of work. Thus, Tat'yana Dudkina, a graduate of School No. 7 in the city of Pushkino is now a DOSAAF activist and medical aid team member at her factory.

This form of propaganda, which the competitions of senior students represent, contributes to increasing the interest in civil defense not only of the students but of all the rayon's population.

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In the Leninabad Area

Moscow VOYENNYE ZNANIYA in Russian No 7, July 78 signed to press 7 Jun 78

[Article by A. Demochkin: "Mentor"]

[Text] Capt (Res) Vasiliy Kirillovich Kopan' who has twice earned the temporary Red Banner of the Tadzhikistan Council of Ministers for the best

organization of civil defense has headed the CD staff of the Proletarskiy Rayon in the Leninabadskaya Oblast for 15 consecutive years.

Most likely, everyone in the settlement of Proletarsk knows this tireless and cheerful individual both as the secretary of the party organization's executive committee and as a member of the staff of "Zarnitsa" and director of a detachment of Red pathfinders. The lads consider it an honor to receive a recommendation for the Komsomol from him. The reserve officer is attracted by it, he is able to find an individual approach to each madcap individual. For the young ones Vasiliy Kirillovich is an interesting individual, a mentor.

Kopan' had occasion to take part in two wars. He was called to active duty in 1937 and was taught to hit targets accurately with machine gun bursts, move expertly on skis, and orient himself without a mistake on the ground. When the armed conflict arose with Finland, he was ready to bravely defend his motherland. The veteran remembers the burning frost during the bold raids of the ski scouts into the rear area of the White Finns and the bloody battles with the fascists at Smolensk in the summer of 1941.

The boys quite frequently ask the former fighting man to tell about some combat episode. And he, no matter how busy he is, will always find a few minutes to talk with the boys and to recall his combat comrades.

Vasiliy Kirillovich's great life experience, his spiritual generosity and his availability attract youths like a magnet. The contact with the war veteran involuntarily pulls them along and disciplines them. Believing in the pedagogic talent of Vasiliy Kirillovich, they repeatedly ask him to influence "difficult" juveniles. Alimdzhon was such a one. He was studying in the local secondary school. Seemingly not a bad and capable lad, he nevertheless did everything backwards. He looked disheveled and slovenly, he insulted anyone he wished without considering age. Vasiliy Kirillovich, having gotten accustomed to him, decided: "The desire to prove oneself sometimes finds expression in this way." He invited Alimdzhon to a military game and without a breathing space covered the entire 10-kilometer sector along with him. Then he managed to invite him to the rayon CD staff and talked about the tasks which civil defense solves and about how the emergency rescue team of the kolkhoz imeni Lenin, in which the majority of the young lads are such as Alimdzhon, once operated skilfully. In brief, he gradually accustomed the young lad to useful work and helped him to master himself and to get rid of the superficial crudeness and bravado.

Army-like order reigns on Vasiliy Kirillovich's staff. All documents have been accurately filed in cases.

Taking one of them, Kopan' explains: "This is our work plan. We draw them up for the year, the quarter and for each exercise. We try to provide for all questions. See the red marks? That means that what was planned was fulfilled - and the blue marks - it was not completed and whose fault it was."



The chief of staff pointed to a fat document case: "Here have been gathered operational news letters, "express" messages, wall newspapers, and extracts from the rayon newspaper. This is information on the operations of our formations during the most critical situations. I save them not as a report but to analyze my work. Here, for example, is material on how an emergency rescue team operated in an emergency situation caused by a cloud-burst. It is necessary to say it appeared at the time rather feeble since in practice these operations were not worked on. Appropriate adjustments were made in the plans for training formations and now not only the emergency rescue team but also the medical aid team, the firefighting team and the formations of the livestock and crop protection service act skilfully and with teamwork during exercises."

There was a knock on the door. A thickset young man entered.

He addressed the chief of staff: "Comrade Kopan', the construction of the shelter has been delayed three months. The builders have been transferred to another installation."

"Wait a minute, I will get in touch with the deputy chairman of the executive committee. Only yesterday I was with her at this project and we arranged everything."

Vasiliy Kirillovich tries to find out: "Anna Ivanovna, what's this" We undertook the responsibility to surrender a shelter during the first quarter.... There are no ceilings? I myself will go to the ZHBK [reinforced cement factory] and get them. I request you give me written instructions."

One hears in the receiver: "Yes, you--Vasiliy Kirillovich--are a bureaucrat."

Kopan' parries the joke: "Here is what I will say to you on that. I arranged with the director of a movie theater to hold an evening movie session on civil defense. The people gathered in the hall, a display was organized in the lobby, the lecturer arrived, the speakers were ready. They came from remote kolkhoz. But the movie operator was slipshod. He did not go for a ride, and did not bring a single film on the subject. The evening was wrecked. And you say a bureaucrat.... I simply love exactness and accuracy in everything."

A young man, that same Alimdzhon, ran up to Kopan' on the street.

"Vasiliy Kirillovich, you are invited to be a guest at the housewarming."

The latter was puzzled: "What housewarming?"

"What! You have forgotten? We have finished equipping the training field. We helped the entire tenth grade to put it into shape. Drop by to see if we got something wrong."

Vasiliy Kirillovich praised the young lad: "Good fellow, you have true friends. I'll drop in without fail."

... Late in the evening Kopan' in field uniform was conducting an exercise with the reconnaissance group of the professional technical school. The chief of staff ordered the participants to line up. There was a brief report to the school's chief of civil defense on their readiness.

The group was ordered to put on gasmasks and protective clothing and to make a radiation reconnaissance of the near-by streets. Vasiliy Kirillovich with a stopwatch in his hands silently observed the actions of the scouts.

The commander of the group said: "Comrade captain, permission to speak?"

Kopan' said "I am listening."

"The DP-5A instrument is out of order. Khamidov can in no way eliminate the breakdown."

"Understood. Give it here."

Vasiliy Kirillovich carefully examined the instrument, checked the tightness of the power supply contacts, shaking his head disapprovingly.

"The batteries are seated.... It is necessary to see to the instrument. There are spare power supplies?"

The commander said in an apologetic tone: "It seems they are in the warehouse. We will get them now" and ran to the structure....

Kopan' addressed the formation of scouts: "The training alarm is not necessary to check your readiness to carry out a combat mission. Today, we have convinced ourselves that everything isn't turning out well with you. Is it really possible to detect contamination of the terrain if an instrument doesn't work? It is necessary to repeat everything from the beginning..."

And, in spite of the late hour Vasiliy Kirillovich continued to work with the scouts on actions which could be required of them during a moment of severe testing. It seemed that neither years nor fatigue will have an effect on this smart appearing, slightly stern, old soldier who has linked his fate with civil defense.

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In the Dnepropetrovsk Area

Moscow VOYENNYE ZNANIYA in Russian No 7, Jul 78 signed to press 7 Jun 78

[Article from Dnepropetrovskaya Oblast: "Together With the Troops"]

[Text] A civil defense troop unit arrived at the factory. Coordination questions on reconnoitering a center of destruction and performing rescue and emergency recovery operations were worked on during a joint special tactical exercise.

#### PHOTO CAPTION

1. p. 23 You see in the photograph (from the right) V. Naumenko, the commander of the installation reconnaissance group, and Sgt. A. Shumkonis, a scout and rated specialist. Sr. Lt P. Rashchuk, the unit commander, is assigning the reconnaissance mission to them.

The factory's reconnaissance group has repeatedly earned a prize position in rayon, city and oblast competitions.

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#### Letters From Readers

Moscow VOYENNNYYE ZNANIYA in Russian No 7, Jul 78 signed to press 7 Jun 78

[Letters: "Extracts From Letters"]

[Text] Questions on strengthening and improving civil defense were discussed during sessions of the Gotoputovskiy, Piniginskiy, Aleksandrovskiy and other rural ~~councils~~ of peoples' deputies. When doing this, a lot of attention was devoted to training the population and the personnel of non-military formations on operating under special conditions and to the publicizing of progressive experience. In particular, it was pointed out that it is necessary to involve rural clubs and libraries in this work on a broad basis, outfit CD corners and classrooms everywhere, organize lecture-type propaganda using the resources of the "Znaniye" Society, and during training employ more widely the showing of movies on civil defense with the subsequent practice of principles and methods for defending against modern weapons.

N. Myshkin,  
CD Chief of staff of Sorokinskiy  
Rayon  
Tyumenskaya Oblast.

A theoretical conference on the subject, "The Operations of Locomotive Crews on Contaminated Railroad Sectors," was held in the Rostovskaya Technical School for Railroad Engineers. The students presented reports on the nature of radioactive contamination of rolling stock and railroad segments, the preparation for moving trains in zones of contamination, and other questions.

After the concluding remarks of the conference director--V. Tarasenko, the school's chief, the students watched the movie, "If This Happens" in which the peculiarities of the operations of locomotive crews in contaminated sectors were shown.

I. Rogov,  
CD instructor, city of Rostov-na-Donu

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### Training Activities in the Krasnogorsk Area

Moscow VOYENNNYYE ZNANIYA in Russian No 8, Aug 78 signed to press 7 Jul 78  
pp 20-21

[Article by Engr-Lt Col A. Sorokin, chief of staff of CD of Krasnogorskiy Rayon, Sverdlovskaya Oblast: "Goal Attained"]

[Text] Civil Defense Week, held in Krasnogorskiy Rayon of the city of Kamensk-Ural'skiy, was preceded by thorough preparations. It was emphasized during the preparations that everything planned would achieve the goal only if CD activists were assisted by trade union and Komsomol workers, economic managers and social organizations.

Above all, a conference was held under the direction of the party raykom with CD chiefs of installations and their staffs, secretaries of primary organizations, rayon CD chiefs of staff and department heads of the party raykom and rayispolkom. CPSU RK [raykom] secretary A. Pashuto explained tasks of civil defense propaganda and the goals of CD Week to those who had assembled.

The order by rayon CD chief B. Poluyakhtov defined the activities planned for the week, stated the conditions, deadlines and procedure for holding rayon competitions, and named the participants. Judges were appointed for each phase of competitions from among workers of the rayon staff and courses and from representatives of the Red Cross and the medical service. Training areas were prepared carefully. In rayon course classrooms where it was planned to check the competitors' ability to work with radiation and chemical survey instruments and radiation exposure monitoring instruments, the production training foremen provided consultations to installation chiefs of staff. The training compound of the Ural Aluminum Plant was outfitted with everything necessary for practical work by rescuers and scouts in centers of destruction. Areas were also organized there for passing norms No 2, 14 and 16-19.

The rayon staff and courses assisted the management of installations in preparing lecture and briefing materials and they provided consultations for specialists on all questions which arose.

The week began with a talk by Rayon Deputy Chief of Staff A. Chusov over the city radio on the topic "Civil Defense is a Matter for Each and Every Person." Information came to the staff daily about activities carried out at the installations.

A great deal was accomplished. Tens of lectures and discussions were given or conducted during the week, and they included the showing of slide films.

Installation radio centers and large-circulation newspapers made a noticeable contribution to CD propaganda. Three civil defense exhibits were operating and wall newspapers, operational newssheets, express leaflets and a photo newspaper were published.

Management officials of the rayon and the installations would speak prior to the showing of CD films. Some films were viewed not only by labor collectives of the enterprises, but also by residents of nearby settlements. For example, the cultural club of a metallurgical plant showed the films "People of Military Glory" and "The Living Need the Sun" to the populace of the settlements of Chkalovo and Krasnaya Zvezda and the village of Volkovo.

There was vigorous training of workers and employees under the 20-hour program and apartment managers held classes with the nonworking populace on the pamphlet "Each Person Must Know and be Capable of This." Training was concluded by passing the CD norms. Formations carefully prepared for taking part in installation and rayon competitions.

The training facility was improved during CD Week: Training rooms, training points, reading rooms and displays were organized or renewed, while protective structures were placed in order and repaired.

During this time we also held a number of exercises: Six tactical-special exercises with formations of the trade and nourishment service; a command and staff exercise at a beer and nonalcoholic beverages plant; and we practiced deploying an OPM [first aid detachment] on the base of City Hospital No 1 with the participation of a medical team from the Ural Aluminum Plant. Integrated exercises in schools of secondary general education No 17 and No 18 also were successful.

We should dwell in particular on the rayon competitions. Use of the Ural Aluminum Plant training compound permitted creating an atmosphere for a thorough check of the readiness of CD formations. Obstructions, fires, damage to public utilities and power networks, destruction of buildings and shelters, and good simulation of "victims" all helped in the moral-psychological conditioning of personnel of the nonmilitarized formations. The participation of teams from different installations in the competitions

made it possible to compare their actions graphically, which aroused each participant to display initiative and boldness in accomplishing specific tasks.

On the other hand, the competitions convincingly showed that readiness and training of formation personnel depend primarily on the ability of their commanders to hold practical problems, allocate forces properly, and ensure cohesiveness in the work. As we know, a large role is set aside for the CD courses in training command-supervisory and management personnel. Their day-to-day training, however, is accomplished directly at the installations with consideration of production features. We also cannot exclude independent work to improve one's knowledge and skills in the organization and accomplishment of civil defense missions.

Rescue teams of the Ural Aluminum Plant, a construction and installation structures plant, a metallurgical plant and a gormolzavod [city dairy] operated most successfully in the competitions. Commanders of rescue formations managed to arrange the work of their teams properly and the personnel oriented themselves faultlessly in the situation at hand, working quickly and cohesively. Reconnaissance teams and other formations of the aforementioned enterprises also demonstrated a high degree of training. It was not by chance that subunits of these collectives were among the prize-winners. One sensed from everything that the efforts of the rayon CD staff and courses workers to prepare integrated exercises at these enterprises had not been in vain. And the managers of these installations, their party, trade union and Komsomol organizations, and the DOSAAF and Red Cross committees regarded the activities of CD Week conscientiously and with full understanding and did everything necessary to fulfill the outlined plans with greatest benefit.

At the initiative of the collective of the Ural Aluminum Plant, conditions were elaborated for competition among shops and departments in civil defense and specific socialist pledges were made. Unfortunately, this cannot be said about such enterprises as the Stroydetal'-70 Plant or the meat combine, which were sluggish with regard to CD Week and did not send a single team to the rayon competitions. There was obviously an underestimation of the importance of this activity in increasing combat readiness of formations and in accustoming broad masses to study the principles of civil defense. During summarization of results, the management of the aforementioned installations and their chiefs of staff had to listen to many critical remarks addressed to them.

On the whole, as was noted at the critique, the goals set by the rayon CD managers were achieved. The critique held with installation CD chiefs of staff examined gaps in formation training and outlined ways to eliminate the shortcomings. And the desire by competition participants to hold practical problems more often will become a stimulus to the installation managers in the search for a more improved organization of civil defense training.

## Training in the Moldavian SSR

Moscow VOYENNNYYE ZNANIYA in Russian No 8, Aug 78 signed to press 7 Jul 78  
pp 22-23

[Article by D. Fan'yan, candidate of historical sciences: "At the Head of the Staff"]

[Text] Whoever has the slightest bit of familiarity with the nature and scope of the work of a rural rayon civil defense chief of staff knows the vastness of his range of activities. All threads of planning, practical implementation of plans and accounting and the generalization of civil defense results come together in the staff. The chief of staff is required to have diversified knowledge, a high staff culture and the ability to work with people. It is impossible to cope with all these obligations without reliance on a firmly organized aktiv.

Several years ago Lt Col (Res) P. Strokov crossed the threshold of the staff of Rezinskiy Rayon of Moldavian SSR for the first time without having an idea as to the entire scope of the work. He knew but one thing: he would manage to overcome any difficulties he encountered. He only had to select knowledgeable, intelligent people.

At the very beginning of his work Strokov turned to one of the responsible rayon officials with a request to examine the plan of civil defense activities. Referring to his workload, the latter refused: "I don't have time for this now." One can understand the morale of a chief of staff who encountered such an attitude in his new post. To Party Member Strokov's honor, he did not lose heart. He turned to the party raykom. A serious conversation took place in the party raykom bureau. The support gave Petr Il'ich inspiration. He continued to work persistently and strengthened the staff.

Two years had not gone by when those in the republic began to praise the status of civil defense in Rezinskiy Rayon and set Strokov as an example. And when results of socialist competition of cities and rayons for the jubilee 1977 year were summarized, the rayon was awarded the Challenge Red Banner of the CC CP of Moldavia and the Republic Council of Ministers for economic successes and for good status of civil defense. The services of the CD chief of staff were mentioned in relation to this. His work is succeeding because he loves his rayon and the city in which he has lived and worked for over a quarter century. He recalls its structures crowded in a narrow strip along the bank of the Dnestr with the crooked little streets which were impassable in bad weather, the one-story straw-roof huts with the little weak-eyed windows in which the light of kerosene lamps flickered weakly at night. The city was transformed before his eyes. One would not recognize it now. Multistoried whitestone houses were built in even rows on an elevation connected with the city's lower riverside part by an amphitheater of broad stairways, landings and public gardens.

Strolling through the city, Stokov experiences a feeling of pride, for at one time he had worked here for several years as chairman of the ispolkom of the city soviet and had contributed a bit of his own work toward the city's renovation. And now in his new post he is responsible for the city's constant readiness for civil defense.

The desire to do more and the feeling of continuous dissatisfaction is a characteristic trait of Stokov's. He often can be seen in the villages and at installations of the national economy. He speaks at party aktiv meetings, gives lectures authorized by the "Znaniye" Society and he appears at various seminars and conferences. The chief of staff also will take part in radio broadcasts and will write a serious article for the newspaper. He is seen at topical evenings at clubs and houses of culture, at readers' conferences, at medical team competitions and in the "Orlenok" and "Zarnitsa" military sports games. He is the organizer of civil defense days. He always is knowledgeable about the life of the entire rayon. "It is one thing," as Comrade L. I. Brezhnev said in his memoirs "Vozrozhdeniye" [The Rebirth], "when a person rummages in his own sector without knowing what is happening about him, and quite another matter when he is knowledgeable of everything taking place at the construction site and knows his place in the common order."

The rayon chief of staff helped conduct integrated exercises in eight villages. In addition to the kolkhoz or sovkhoz, all schools, hospitals, trade and construction organizations, inter-economic associations and everyday services enterprises were brought in for them. Judging from results, the exercises were held at the proper organizational-methods level. The rayon was one of the first in 1977 to complete the three-year series of integrated installation exercises and to begin over again.

Of special interest was the recent integrated exercise in the village of Kushmirka, in which the 50 Let Oktyabrya Kolkhoz and collectives of small installations on the territory of the village soviet took part. And a meeting of the defense aktiv was held here after the exercise in the village house of culture under the direction of party raykom first secretary L. Kushnir. Here the Kolkhoz imeni Kotovskiy was awarded the challenge red banner of the party raykom and the ispolkom of the rayon soviet of people's deputies for best civil defense readiness.

Socialist competition in the civil defense system has become firmly established in Rezinskiy Rayon. Heads of the rayon party organization and the public saw to it that competition became an effective means for propagandizing foremost experience and that it received publicity and public revelation.

Petr Il'ich is a party member of principle. Once he attended an integrated exercise in the village of Tsarevka which had been poorly prepared. The tactical situation had been developed carelessly, one sensed no intensity in the people's actions, insignificant numbers of the populace had been brought



in for the exercise and the nonmilitarized formations did not stand out. Then after Stokov's report, the rayispolkom decided that an integrated exercise had to be prepared and held here over again. This significantly increased the sense of responsibility of civil defense chiefs of all the rest of the village soviets and national economic installations for the quality of civil defense activities.

The chief of staff sees more than just the shortcomings. He carefully generalizes and disseminates bits of valuable experience.

"No experience can be repeated mechanically," says Petr Il'ich. "It has to be introduced meaningfully and creatively, with consideration of the specific features of an installation or village."

In addition to training at the CD courses, training of management and command-supervisory personnel at five-day training methods courses is conducted regularly in the rayon. This creates the backbone of trained cadres which the civil defense chief and his staff can rely upon to improve civil defense in the rayon.

That those in Rezinskiy Rayon now are well prepared to accomplish difficult missions is shown by their selfless actions in fighting the aftermath of the February flood and March earthquake of 1977. Personnel and commanders of civil defense formations then showed high practical training, physical endurance, efficiency, gumption and resourcefulness.

Success largely is facilitated also by the fact that the staff works hand in hand, as they say, with trade union and Komsomol organizations, with DOSAAF and Red Cross committees, with the board of the "Znaniye" Society, with the department of culture, with the board of directors for spreading films, with the military commissariat, with the department of public education and with knigotorg [book trade office]. And again we will refer to Brezhnev's memoirs. He notes that "people are the most important element; to understand them and be understood by them is the important thing."

Coordination of efforts by the large aktiv to resolve defense tasks is reflected in particular in the plan of civil defense propaganda activities among the populace approved by the party raykom. Oral civil defense propaganda, its presentation in radio broadcasts and the press, the showing of films, dissemination of books and visual agitation, the holding of civil defense days and mass defense work months, competitions of medical teams and the "Orlenok" and "Zarnitsa" military sports games--all these and other activities are conducted together.

Not everything goes smoothly, however. There are, of course, difficulties, such as in training the populace, improving the training facility for the people's practical training, and increasing the quality of oral propaganda. But the creative approach toward improving work style, the rich experience and reliance on the aktiv represent a guarantee that these difficulties, too, will be overcome.

## Instructor Meeting in the Rostovskaya Oblast

Moscow VOYENNNYYE ZNANIYA in Russian No 8, Aug 78 signed to press 7 Jul 78  
p 23

[Article by A. Tochkov, assistant chief of staff for CD propaganda of Rostovskaya Oblast: "Instructors Take Courses"]

[Text] The civil defense staff of Rostovskaya Oblast held a five-day course for heads of chairs and civil defense courses, university instructors and military instructors of tekhnikums. Oblast CD chief of staff Capt 1st Rank V. Serkov gave a briefing on results and tasks of further improving instruction of this subject at higher and secondary educational institutions. He touched on results of the all-union competitive review for best training facility in higher educational institutions of the RSFSR. The Novocherkassk Polytechnical Institute took 1st place and the Rostov Institute of the National Economy took 2d place in their groups of universities. The contest showed that there had been a significant improvement in use of technical training facilities in the Rostov Pedagogic Institute, the Agricultural Machine Building Institute, and the Taganrog Radiotechnical Institute. Much is being done in these universities along the line of military-patriotic indoctrination of students as well.

Course participants heard a series of lectures on primary requirements placed on civil defense in light of decisions of the 25th CPSU Congress, about the international situation and about the pedagogic and methods expertise of the instructor. K. Sapozhnikov, P. Babich, L. Chikalov and candidate of pedagogic sciences A. Malashchenko--officers of the military district political directorate--gave lectures.

Generating great interest were classes on the organization and methodology of holding integrated installation exercises and on the planning and elaboration of methods aids in chairs and courses. In the classes the instructors solved practical problems of special training, which permitted them to expand and reinforce their knowledge.

During the course the instructors familiarized themselves with the organization of the training process and training facility of oblast and rayon CD courses. They saw much that was instructive in the specialized classrooms outfitted with contemporary technical training gear and teaching machines. B. Shmarakov, chief of the oblast CD courses, told about using these facilities.

Base training points of a number of installations and educational institutions assigned to oblast CD courses, and particularly the training point of the Don State Tobacco Factory, left a good impression on the course participants. Specialized classrooms have been arranged here in accordance with the latest requirements, which increased the effectiveness of student training. At one of the installations university instructors became

familiar with a training compound, with the outfitting of nonmilitarized formations and with their practical training for actions in a center of nuclear destruction.

In conclusion the instructors exchanged experience of training and indoctrination work and of improving training facilities, and they made specific suggestions for improving the training of specialists who are future commanders of the national economy. Course participants noted that the oblast CD staff had considered the wishes expressed last year and included in the program practical activities and a specific demonstration of new and foremost elements in training. This is what ensured success.

#### Effectiveness of School Training Programs

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[Article by Col N. Vitrenko: "Attention to Methodology"]

[Text] Schools of general education and PTU [vocational and technical schools] are capable of providing their students with firm knowledge and the necessary skills in civil defense. The capabilities are expanding all the while. Experience is being accumulated, new forms and methods of training and indoctrination work are being established and the training facility is being strengthened.

Training success largely depends on proper use of pedagogic techniques and methods, i.e., on how the training material is presented. We will give several examples.

A. Tarasova, a teacher of junior classes at the Vetspils Rural Secondary School of Latvian SSR, has high methods expertise. In the time allotted by the program, she manages not only to familiarize her students with the purpose and design of individual protective gear, but also to practice techniques of using it, allocate sufficient time for practices prior to passing the practical norm and arrange for the entire class to make cotton gauze bandages. Antonina Feliksovna manages to do all this thanks to her use of various methods. Her pedagogic arsenal includes the narrative, explanation, demonstration, exercise and independent work by pupils.

It stands to reason that close ties exist among the enumerated training methods. It is reflected in the fact that use of one method presumes its obligatory combination with others.

We will tell briefly about an open lesson on the topic "Rules of Conduct and Actions by the Populace at the Threat of Enemy Attack and in Response to the Signal 'Air Alert'," which was held in the 5th grade of Secondary School No 59 of Khar'kov. Taking advantage of the children's curiosity and creating a situation of activeness in the lesson, class leader L. Pchelintseva used those methods techniques with which she managed to

reinforce knowledge the children had obtained previously, achieve good assimilation of the new material, develop certain skills and, in addition, see to the molding of moral-psychological qualities. Using direct questioning, Lyudmila Kondrat'yevna went over the key points of the previous topic in five minutes. In so doing she gave outstanding marks to two pupils. Convinced that the class had firmly assimilated means of individual and collective protection, the teacher moved on to the new topic. Combining a discussion with a demonstration of slides, she explained to the children what they had to do and how to conduct themselves if a threat of enemy attack arose. As the class went along she asked questions, which stimulated the pupils' activeness by getting them to comprehend the new topic.

Lyudmila Kondrat'yevna did not present the content of the second training problem, "Actions in Response to the Signal 'Air Alert'," word for word, but suggested viewing a ten-minute slide training film of the same title. Prior to showing the film she explained to pupils what the "air alert" signal warns of and what amount of time the populace has to find shelter after it is given. Then she asked them to memorize the text which is transmitted by radio when this occurs, as well as to remember the sound of the signal. As the film was shown she explained the features of actions if the signal found them in school, at home, on an unfamiliar street, in a public place or in city transportation.

Another five minutes were required after the film in order to receive answers from the children to questions asked on cards handed out ahead of time: "Who gives the 'VT' ['air alert'] signal and how?", "Actions in response to the 'VT' signal at home or in a public place," "Who gives the signal 'All Clear'?" and others.

The "Air Alert" signal, recorded on tape, sounded 12 minutes before the end of the lesson. Pupils followed the instructions of the class leader and quickly left the classroom without fuss, taking individual protective gear with themselves, and descended by the shortest route to the school's basement, adapted as an antiradiation shelter. The class ended here.

Military instructors in the senior classes studying civil defense under the NVP [initial military training] program are required to use those training methods which mold collective skills and cohesiveness in work. Classes given by Lt Col (Res) M. Tumantsev, head of the military instructors' methods association of the city of Daugavpils, are instructive. Prior to classes on the topic "Actions of a Scout as Part of an Observation Post," he breaks the pupils down into observation post teams and assigns them homework to prepare a sketch of the terrain where the problems will be conducted and gives them sheets containing an observation log format. Prior to the lesson he checks the pupils' equipment and presence of radiation and chemical survey instruments, compasses, diagrams, observation logs and the set of warning markers. The military instructor gets the gear that is lacking ahead of time from sponsors, from a CD base or at the nearest school. He builds up and complicates the situation with new narratives during the

problem, creating conditions for the display of initiative and wits and for making bold decisions. He introduces elements of physical and psychological stress into the lesson.

The aforementioned methodology for conducting problems in the 2d, 5th and 9th grades shows that very noticeable increases in lesson effectiveness can be achieved. The goal of all methods techniques is for pupils to master a specific amount of knowledge, skills and abilities in a limited period of time.

The subject "Civil Defense" requires constant attention on the part of the board of directors of the SSh [secondary schools] and PTU and the entire pedagogic collective toward the methodology of its instruction. We will give Secondary School No 17 of the city of Gomel' as an example of the participation of the entire collective in this matter. Historian P. Zarapina, physicist N. Pashkevich, biologist Z. Khodasevich, chemist D. Ganelina and geographer A. Bondareva all do their bit for the common cause of preparing future defenders of the Motherland. They are organized and brought together by the military instructor, Capt (Res) F. Sologubov. Filipp Gavrilovich is a good methodologist and an organizer with initiative. He constantly concerns himself with improving the civil defense training process. He helps teachers to choose material, suggests the best forms and methods for conducting classes and he himself conducts demonstration lessons on the most complex topics. Here he makes it a practice to have teachers of parallel classes mutually visit civil defense lessons and to have open lessons conducted. He also sees to it that foremost training methods in other subjects are actively introduced in civil defense lessons.

V. Shalupayev, the director of this Gomel' school, asks about the pupils' progress when he visits civil defense lessons. He seeks improvement in instructional methods and strictly sees to it that all 2d grade teachers and 5th grade class leaders receive timely training at CD courses. Matters involving further improvement of instructional methods and reinforcing civil defense training facilities are periodically reviewed by the pedagogic council. The school's party bureau secretary Ye. Mel'nikova also delves constantly into the educational institution's civil defense matters. It is noteworthy that these matters are included in the agenda of party bureau sessions or party meetings not in general, but in specific wording.

At the initiative of Party Member F. Sologubov, instructors and senior class students at the school set up a CD training room which meets modern requirements. It has a full set of authorized gear and technical training facilities. A training compound has been built with the help of the sponsoring enterprise, the Gomel' Electrical Engineering Plant, which allows practicing all practical norms covered by the CD program.

A great deal of work is conducted at the school outside the classroom in order to reinforce the knowledge and skills obtained in CD lessons. This includes practices prior to competitions, competitive reviews, quizzes,

evenings of questions and answers and passing CD norms in the GTO [Ready for Labor and Defense] complex. Senior class students visited the civil defense training point at the industrial installation and became familiar with the organization of protective structures. The past training year ended here with schoolwide CD games. The great labor by the collective of School No 17 was crowned by the school being made a civil defense base.

In telling about positive aspects of the training process, we cannot help but mention serious omissions. Checks have established that the training of pupils in some schools and PTU of Tuva and Dagestan and of Chitinskaya and Irkutskaya oblasts is conducted in violation of existing programs and requirements. For example, instead of scheduled classes, the civil defense program in six 5th grade classes of Secondary School No 35 of the city of Bratsk during the second half-year was curtailed and "fulfilled" in a month's time. The pupils' knowledge of the CD program was not even evaluated. Director Z. Kirilenko and military instructor A. Alpeyev had not attended a single class and do not know the state of affairs involving CD training of pupils of the 2d and 5th grades. Eleven teachers hold classes in this subject but do not receive any methods aid.

It is also strange that the city department of public education of Bratsk took over two years to get the instructions of the USSR Ministry of Education and Chief of USSR CD to the schools concerning conversion of 2d grades to 45-minute civil defense lessons, and as a result it did not carry this out. A connection between primary subjects and civil defense has not been established in the city's schools. Meanwhile, as the head of the gorono [city department of public education] himself, A. Inozemtsev, admits, instructors of physics, chemistry and biology could have considerably expanded the pupils' impressions of the destructive factors of modern weapons and their effect on man and his environment.

For example, at the Taginsk Secondary School of Orlovskaya Oblast military instructor A. Zhukov presents Topic No 6, "Rescue and Urgent Emergency Restoration Work in Centers of Destruction and Areas of Natural Disasters," in one hour instead of the four prescribed by the program in the 9th grade.

The CD program is not being fulfilled in secondary schools No 8 and No 23 or in GPTU [City Vocational and Technical School] No 14 of the city of Yakutsk. Violations are allowed to occur in the sequence of studying training material, narrative is substituted for practical classes, and technical training facilities are hardly used in the lessons. Military instructors A. Yankin and A. Meteyev of GPTU No 8 and SPTU [Village Vocational and Technical School] No 4 of Dagestan ASSR are using books and lesson plans which are five years old.

These facts show that the organizational role of CD staffs and departments of public education which provide the schools with no methods assistance still is low in places. Supervision is poorly arranged and scientific methods generalization and the dissemination of foremost experience has not

been set up. Some CD staffs which organize checks of the status of civil defense in educational institutions at times evaluate them as national economic installations without delving into the specific nature of planning or methodology of the training process.

A number of places unjustifiably postpone conducting scientific methods conferences on problems of improving the training of student youth in defense against mass destruction weapons which, as we know, are insistently recommended by the board of the USSR Ministry of Education and the Chief of USSR CD.

And so, civil defense as a training subject in schools and PTU has its own features and requires specific methods and forms of training, but most important, it requires day-to-day attention.

#### Training Seminar for the Ukrainian SSR

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p 25

[Article: "Republic Seminar"]

[Text] A republic training methods seminar of inspectors and methodologists of initial military training and civil defense of the Ukraine was held in Khar'kov. It began with the demonstration of an integrated installation exercise at Secondary School No 59. This exercise provided detailed material for its discussion at a plenary session of the seminar, which was opened by Deputy Minister of Education of the Ukrainian SSR M. Fomenko.

Hero of the Soviet Union Col Gen Avn V. Kubarev; Col A. Prokop'yev, chief of staff for CD of Khar'kovskaya Oblast; and representatives of civil defense staffs of the Ukraine and the USSR spoke to those gathered. The briefing by a representative of Ukrainian SSR Ministry of Education and presentations from the floor comprehensively revealed the organizational, methodological and other issues on which the improvement of civil defense instruction in schools of general education depends.

A great deal of interest was generated by open civil defense lessons in the 2d, 5th and 9th grades, which were conducted at a high methods level by teachers R. Zakutskaya and L. Pchelintseva and by Physician O. Gladysheva.

Seminar participants were familiarized with the model civil defense training facility in Khar'kov secondary schools No 66 and 59. The first of them has a CD training room in addition to a military training room. At the second school, Director A. Gorbacheva and Military Instructor E. Orobeyko were able to accommodate the equipment of two training rooms in one area. The secret lies in the fact that displays made in the form of turnstiles carry a dual load. On one side are visual aids on NVP [initial military training], while on the other are materials on six topics of the civil defense program. It

takes a matter of seconds to convert the NVP training room into the CD training room and vice versa by a turn of the turnstiles.

Seminar participants became familiar with the protective structure, training point and CD compound of the patron plant of School No 59. The plant helps not only in preparing pupils for work, but it also trains them in methods of protection against mass destruction weapons.

The Palace of Young Pioneers, where the seminar's plenary sessions were held, had a large exhibit on initial military training, civil defense and military-patriotic indoctrination of the student youth. Special interest was generated by operating models of radiation survey instruments and filter-ventilator units made by pupils of Secondary School No 28 under the direction of Military Instructor G. Verbato.

The training methods seminar conducted by Ukrainian SSR Ministry of Education with the active participation of local CD staffs will serve as a new stimulus to improving civil defense instruction in schools of general education.

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## SHIP ARTILLERY FIRE CONTROL INSTRUMENTS DESCRIBED

Moscow VOYENNNYYE ZNANIYA in Russian No 7, Jul 78 signed to press 7 Jun 78  
pp 40-41

[Article by Capt 1st Rank S. Litvinov: "Shipboard Artillery Firing."  
Passages in slant lines printed in bold face.]

[Text] When talking about shipboard artillery fire control instruments, we are discussing a system of mutually-connected devices and weapons (artillery mounts, radars, EVM [electronic computers], optical instruments, computers, and the like) which are used to solve firing missions, that is which carry out the observation of the target and the determination of present position data (h--altitude, d--range, E--elevation, and b--bearing or direction); the point of impact of the shell with the target is determined; data for laying the artillery mounts are processed on the basis of numerous information concerning the target and one's own ship; continuous guidance of the artillery mounts to the target is accomplished, the firing is carried out, the firing is observed, and the necessary corrections are input.

The effectiveness of artillery firing mainly depends on the accuracy and the speed in solving the problems of shell impact with the target using fire control instruments (PUS).

Contemporary shipboard artillery systems in a majority of foreign navies are equipped with modern artillery mounts and fire control systems which permit firing against surface, airborne, and shore targets. As opposed to ground-based artillery, shipboard artillery operates under more complex conditions. It is called upon to fire from a ship which is moving and sometimes even one that is pitching on the waves and it primarily fires as well against moving and maneuvering targets. These special features of firing at sea require extraordinarily complex fire control instruments as well as systems and mechanisms for guiding the artillery mounts,

If you examine a typical fire control system, then as a rule it includes the following basic instruments and devices.

/Acquisition and target designation instruments,/ Included here are conventional shipboard (surface and airborne) target acquisition sets which provide position data to firing radars, as well as various optical instruments (range finders, sights, and binoculars).

/Observation and present position data instruments,/ This group of instruments, having received the target designation (or having acquired the target) and observing the target, continually and accurately determine its position data and transmits them to the main artillery post (TsAP). This group includes artillery radars, range finders, and optical sights. On some ships, the range finders and sights are located in the command and range finding post (KDP), while the radar antennas along with the range finder and sight are located at stabilized directors (SPN) or at stabilized director sights (SVP).

/Firing data processing instruments,/ for continual processing of guidance angles and their transmission to the artillery mounts. This group includes the fire control table (TsAS), coordinate convertor (PK), instruments for transmitting the fire director's commands and for controlling the firing system, and others. The TsAS is a basic computer which processes the guidance angles for the artillery mounts without taking into consideration pitch angles on the basis of the various values and corrections which are input and set up in the computer. The guidance angles processed by the TsAS are fed to the PK where, added to the pitch angles, they form the so-called full deflection angles (PUGN) and full elevations (PUVN), which are also transmitted to the laying instruments located within the artillery mounts. In addition, when firing at aerial targets, the setting for the fuse (primer) is also processed in the TsAS.

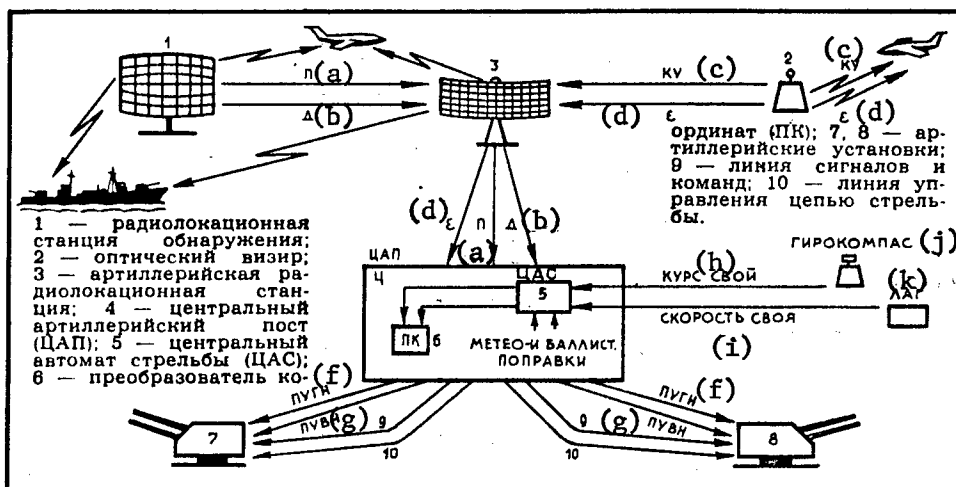
Guidance of the artillery mounts is accomplished using power drives which can be either electrical or electrohydraulic. Automatic artillery mount guidance (or remote control (DU)) accomplishes remote control based on guidance from data processed in the TsAS and PK.

Naturally, modern artillery fire control systems did not appear overnight but resulted from long-term development.

The history of artillery instruments is closely and inseparably linked with the history of development of artillery itself.

As long as artillery during the days of the sailing fleets was faced with fixed or slow targets and sea battles were fought at short ranges (from 200 to 600 meters), there was no requirement for instruments which would simplify the preparation of firing data. It should also be noted that the guns themselves during those times were not perfected and the great gaps between rounds made it possible to do all the required calculations either mentally or on paper.

# Typical Schematic of the Interplay of Artillery Fire Control Instruments



## KEY:

- |                                   |  |
|-----------------------------------|--|
| (1) Acquisition radar;            | (a) b - bearing;                       |
| (2) optic viewfinder;             | (b) D - range;                         |
| (3) artillery radar;              | (c) KU - reduction coefficient         |
| (4) main artillery post (TsAP);   | (d) E - elevation;                     |
| (5) fire control table (TsAS);    | (e) weather and ballistic corrections; |
| (6) coordinate convertor (PK);    | (f) PUGN - full deflection angle;      |
| (7), (8) artillery mounts;        | (g) PUVN - full elevation;             |
| (9) signal and command link;      | (h) own course;                        |
| (10) firing network control link; | (i) own speed;                         |
|                                   | (j) gyrocompass;                       |
|                                   | (k) log.                               |

The situation changed drastically when fast-moving targets appeared and the rate of fire of the guns increased. True, at first, this was not to be employed fully. This is explained by the fact that, when firing at moving targets, each volley had to be prepared by means of making complex and long computations which took a relatively long time.

Various types of tables, graphs, and nomograms began to be used to reduce the time required to prepare the volley. Then the simplest mechanical calculators appeared. Improvement in such calculators also led to the development of the first fire control instruments.

Fire control instruments primarily were employed in shipboard artillery. These were signal and primer attachments which made it possible to carry out a volley from the guns simultaneously along the entire side of the ship or to fire a group of guns.

Artillery Flag-Officer Aleksey Pavlovich Davydov, a talented inventor and a pioneer in Russian artillery instrument building, a participant in the Crimean War of 1853-1856, made a great contribution to the development and implementation of the first fire control instruments. In 1870 he recommended that the ships of the Russian fleet be provided with the "System of Automatic Firing Devices" which he had developed. This was a complex of electrical equipments which insured fire control when using the volley method of firing.

In 1872 the Davydov "System of Devices" was installed on the armored floating battery "Pervenets" where they were tested and, in 1876, it was added to the ship inventory. Two years later an officers' artillery course, which then became the school of Russian naval artillerymen, was established in Kronshtadt for training naval artillerymen in the combat employment of shipboard artillery using the Davydov system. The PUAO [artillery fire director] system invented by Davydov was a first not only in our country but in the world as well. Having established the fixed basic principles of volley fire, Davydov improved this method and developed the idea of centralized artillery fire control.

However, in Tsarist Russia, many of Davydov's proposals were shelved. But, none the less, in 1894 devices for synchronous transmission of sight and windage settings to the guns, as well as signals and commands, were being widely introduced in the Russian fleet.

By 1911 engineers M. Mozhkovich, G. Klement'yev, and V. Naumov elaborated a more improved PUS system which had an automated sight which continually computed the change in range to the target, which simplified the input of corrections to the sight.

Employment of aviation in the 1914-1918 war caused development in anti-aircraft artillery fire directors (PUAZO) but all of them at first were unable still to automatically compute the movement of the target and therefore were ineffective. The work of Russian Army Col Perepelkin,

who elaborated an original instrument called the tachogoniometer which was the prototype of the modern antiaircraft artillery fire director, should be considered the first fully successful solution for this problem.

In the 1930's we created new PUS and PUAZO systems for Kirov-class cruisers and destroyers. These systems stood up to the strict test of the Great Patriotic War.

In September 1941 shipboard artillerymen in the cruisers "Krasnyy Krym" and "Krasnyy Kavkaz," participating in the landing operation near Grigor'yevka, effectively supported the operations of the landing party on the shore with artillery fire. Artillery fire from the battleship "Sevastopol'," cruisers, and destroyers played a significant role during the defense of Sevastopol'. Shipboard antiaircraft gunners also operated successfully. Thus, antiaircraft batteries aboard the battleship "Oktyabrskaya revolyutsiya" in two months of 1941 repulsed 30 raids by fascist aviation. The Hitlerites often threw their air squadrons against the cruiser "Kirov." They simultaneously attacked with 50-60 aircraft from various directions but the cruiser's crew successfully repulsed their attacks every time.

The Soviet Navy during the Great Patriotic War to the end fulfilled their duty to the motherland and honorably accomplished the missions assigned. Shipboard artillerymen, destroying the enemy with their naval artillery systems advanced for their day, also made a great contribution to its successes.

During the postwar period, views relative to the nature of the employment of shipboard artillery in the overall system of naval weaponry underwent important changes. The role of shipboard artillery and the nature of the missions it accomplishes changed with the advent of nuclear missile weapons.

According to foreign military specialists, shipboard artillery in the main must be a standard automatic system with a high rate of fire and firing accuracy.

Shipboard artillery fire control systems, as the foreign military press reports, are developing along the lines of creating automated instantaneously processed firing data without the participation of man. This is being achieved through the use of the newest advances of the field of electronics and computer equipment in fire control instruments (PUS).

In the PUS systems in foreign navies, electromechanical analog computers have been replaced by analog electronic computing devices. Digital computers have found use in several PUS systems. Their advantage is in the ability to solve complex control tasks as well as the capability of combining with automated systems for reflecting the tactical situation with them. The reaction time of the new PUS systems has been reduced to several seconds.

The "Sapphire" artillery fire control system has been created in England. It is reported that the system supports firing against low-altitude aerial and fast surface (up to 60 knots) targets. The system includes a target search and track radar, a computer, and a digital fire control table.

The radar with a range of up to 40 kilometers permits tracking targets from minus 30 degrees to plus 85 degrees in angle of elevation. The fire control table processes data for the interception of only one target.

The Mk-86 standard system, which supports firing against surface, airborne, and shore targets, is employed for artillery fire control aboard Spruance-class American destroyers. The radar antennas and a remotely-controlled television camera with rapid slew work independently but in conjunction with the electronic computer and provide rapid determination of range and angle of elevation. The radar can automatically track aerial targets. The Mk-86 system can also employ two optical devices: television or laser. The laser device provides the capability of determining the range to ships, track airborne targets, and fire against the shore. The operator console contains a television screen and an indicator which make it possible to evaluate the results of the firing and to correct it. The acquisition radar permits output of data on targets from the surface to an altitude of 600 meters at ranges from 136 meters to 37 kilometers.

In recent years, standard weapon control systems have been created in a number of foreign countries. These systems support both the firing of artillery mounts as well as control of missile complexes. One such system is the "Albatros" shipboard integrated automated weapons control system developed for the Italian Ministry of Defense. It consists of two subsystems: the SAM and artillery mount control subsystem which includes a fire control radar, electronic computer, and weapons control console, and the weapon subsystem which includes antiaircraft, missile, and artillery mounts.

Another similar standard system is the French "Vega" system. It can be employed to control artillery fire for almost all calibers, guidance of the "Excocet" missiles, and for wire-guided antiaircraft missiles and torpedos. The foreign press notes that the "Vega" system has eleven modifications. One of the modifications is selected depending on the missions accomplished by the ship and the weapons which must be controlled. Reaction time for the system in the automatic mode is 6 seconds.

Thus, a short and far from complete examination of the development of postwar artillery fire control systems in the navies of the capitalist states shows that basic attention is being placed on the elaboration and creation of new standard automated systems based upon the latest achievements in science and technology.

We note in conclusion that our Navy possesses effective means for guiding the firing of shipboard artillery and excellent cadres of artillerymen capable of successfully employing these systems.

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#### DEVELOPMENT OF ONE-MAN COMMAND PRINCIPLE DISCUSSED

Moscow KOMMUNIST VOORUZHENNYKH SIL in Russian No 13, Jul 78 signed to press  
19 Jun 78 pp 18-26

[Article: "One-Man Command in the Soviet Armed Forces"]

[Text] It is recommended that the article be utilized in groups for the Marxist-Leninist training of officers when studying the subject: "V. I. Lenin. The CPSU on one-man command in the Soviet Armed Forces. The role of officer personnel in the indoctrination and training of the personnel."

Our Soviet motherland occupies a worthy place on the most advanced positions of social progress. We were the first in the world to create a developed socialist society and we are the first to be building communism. Never before has our country had such a tremendous economic and scientific-technical potential. And never was its defensive capability so firm and reliable.

In giving our successes their due, noted Comrade L. I. Brezhnev in his report, "The Great October and the Progress of Mankind," we understand full well that we still have enough problems and that a tremendous field for activity lies ahead of us. The success of our entire cause depends on people, on cadres. This imposes new, higher requirements on them. The requirements imposed on cadres at the contemporary stage of our society's development are set forth in concentrated form in the summary report of the Central Committee CPSU to the 25th Party Congress. "The contemporary leader," it was noted at the Congress, "must represent the organic unity of party spirit with profound competence and discipline with initiative and a creative approach to matters. At the same time, on any sector the leader is also required to consider the socio-political and indoctrinational aspects, to be sensitive to people and their needs and requirements, and to serve as an example in work and in daily life" ("Materialy XXV s"yezda KPSS" [Materials of the 25th CPSU Congress], p 70). The high stage of organization at all levels, in all elements of party, state, and economic leadership, and at each work site is a necessary and mandatory precondition for the accomplishment of the tasks assigned by the Congress.



The party congress and the new Soviet constitution have put forth exceptionally important tasks for the Soviet Armed Forces. Their duty is to defend the socialist fatherland dependably and to be in constant combat readiness which guarantees the immediate rebuff of any aggressor. One of the necessary conditions for a high combat capability and the combat readiness of the troops and naval forces is seen by the party in the consistent strengthening of one-man command and in increasing the personal responsibility of commanders for the training and indoctrination of subordinates and for ensuring clear organization, coordination, and discipline in all elements of the military organism.

V. I. Lenin provided the scientific basis for one-man command in the army and navy. The strictest unity of actions by the large masses of people and the subordination of the will of thousands to the will of one person, the commander and chief, is more necessary in military affairs than any place else, he taught.

At the same time, Vladimir Il'ich noted the qualitative feature of one-man command in socialism. It consists of the fact that the leading cadres are appointed by truly popular Soviet authority, selecting them from among the most worthy representatives of the workers who are able to implement party policy successfully and express the will of the people correctly. V. I. Lenin indicated that there is absolutely no fundamental contradiction between socialist democracy and one-man command since each leader, having been endowed with the appropriate powers, is under the control of the party and Soviet authority and accountable to them. He sees the principal merit of one-man command in the fact that it "ensures most of all the best use of human abilities and a real, not verbal, check of work" ("Polnoye sobraniye sochineniy" [Complete Works], vol 40, p 76).

The historic experience of the Soviet state and its Armed Forces convincingly confirms the correctness of the Lenin ideas. The collective activity of people is unthinkable without their subordination to certain order and rules and standards of behavior established by society. This pertains especially to the army where exceptional clarity, organization, execution, and discipline are required. It is attained by the strict centralization of administrative authority and the implicit obedience of commanders and chiefs by the personnel. As early as in the decisions of its 8th Congress the party defined the course for the organizational development of a "centralized army, the unity of organization and unity of control of which alone can ensure the attainment of the best results with the least sacrifices."

The necessity and expediency of one-man command are caused by the specific features of military organization and by the special features of troop leadership. Permitting the effective utilization of military-theoretical and technical knowledge, experience, organizational abilities, and other qualities of military personnel, one-man command ensures centralized, maximally flexible and reliable control, and the broad initiative of the commander in making and implementing a decision. At the same time, it ensures the commander's complete personal responsibility for all aspects of the life, training, and combat activity of the troops as well as the high discipline and responsibility of each serviceman for the execution of the commander's order.

Under any conditions, one-man command permits concentrating efforts and the will of commanders, political officers, and all personnel on the accomplishment of the basic tasks and achieving the actual unity of will and action. It provides the opportunity for the best organization of the close coordination among all the men and equipment participating in a battle and, uniting them, directing them for the attainment of the assigned goal. The effectiveness of one-man command is determined primarily by the commander's ability to utilize the authority and rights granted to him in such a way that each order and instruction are directed toward improving the quality of training and combat readiness, strengthening discipline and, in a combat situation--the attainment of victory.

All the functions of troop control as well as the right to check the activity of subordinates are concentrated in the hands of the Soviet commander. V. I. Lenin repeatedly reminded us that the right to lead should be granted to those who are known for their firmness, resolve, boldness, and an ability to conduct practical matters with a sense of high personal responsibility. The famous military leader, M. V. Frunze, said: "...our units must be led by people who possess sufficient independence, firmness, initiative, and responsibility. We need command personnel who do not lose their heads in any situation and who could make the appropriate decision quickly, bearing responsibility for all its consequences and implementing it firmly" ("Izbrannyye proizvedeniya" [Selected Works]. Voenizdat, 1965, p 480).

One-man command in the Soviet Armed Forces is implemented on a party basis, in strict conformance with the ideology and policy of the CPSU. The main thing in the concept of a party basis for one-man command is the implementation of the Communist Party's policy by each commander, whatever post he may occupy. The genuine leader-organizer appears before us first of all as a mature politician who is profoundly conscious of the tasks for the further development of the state and its defensive capability and who is able to transform them into practical goals for specific work. In his activity, the one-man commander relies on the party and Komsomol organizations and makes full use of their mobilizing force and authority and their creative activity to increase the combat readiness of the units and ships.

What does it mean for the commander to rely on the party organization and direct its activity? It means, first, informing the party organization, its activists, and all communists regularly and in good time about the assigned missions, about successes and shortcomings in training and service, and about measures which have been outlined for a further raising of the level of combat and political training and combat readiness. It also means expressing his suggestions on which question it is necessary to focus the attention of the party organization at a given time. Second, it means constantly consulting with the communists and, first of all, with the secretaries, members of the party committee, and party bureau on the most important questions of regimental or ship's life and considering their proposals attentively. Third, it means assisting the party organization in every way in the conduct of measures for the communist indoctrination of the servicemen and their mobilization for the accomplishment of the tasks facing the unit, ship, and subunit. Fourth, it means personal participation in party life.

The implementation and intensification of party influence on all aspects of military life presume the development of fundamental criticism and self-criticism. Criticism helps to eradicate shortcomings and prevents complacency and conceit. The forbidding of the criticism of orders and instructions of commanders, which follows from the nature of one-man command in the army, does not contradict the principle of party criticism in general. Communists are right and required to criticize any chief for his nonparty behavior, for irresponsibility, or for a dishonest attitude toward matters. "The authority of military personnel and appointees," noted V. I. Lenin, "is not undermined by the one who points out harmful extremes and conducts their correction, but by the one who resists such correction" ("Polnoye sobraniye sochineniy," vol 42, p 244). This Lenin instruction is timely today. In the decisions of the 25th Congress the party again reminded us of the importance of reacting to criticism for leaders of any rank. The impermissibility of prosecution for criticism is legislatively confirmed in the Soviet constitution.

Another special feature of Soviet one-man command is the fact that it does not deny the necessity and expediency of collective leadership in certain forms in some elements of the military organism but is reasonably combined with it. Organs of collective leadership such as the military councils are functioning in the Soviet Armed Forces. They have the right to consider and resolve all most important problems of the life and activity of the troops and are responsible to the party, the government, and the Minister of Defense of the USSR for the state of combat readiness of the units, ships, and large units. The collective form of examining the most important questions helps the commander to make the most correct decisions which are realized in his orders. This ensures the clarity of troop control and the consistent implementation of the principle of one-man command in the highest echelon of military leadership.

No commander of a large unit, unit, ship, or subunit can ignore the experience and knowledge of his subordinates. And prior to the adoption of a decision and depending on the situation and time, he usually listens to the opinion of his deputies, chiefs of services, subordinate commanders, and party and Komsomol activists, that is, of those on whom he relies in organizing the accomplishment of standing missions.

The principal of one-man command in the Soviet Armed Forces always determined the line of the Communist Party in military organizational development. This must be stressed in connection with the fact that the institution of military commissars was introduced in the army and navy at certain stages of their development. As is known, this was connected with specific historic conditions in which our country and its Armed Forces found themselves in the period of the Civil War and the start of the Great Patriotic War.

Complete one-man command was established in the Soviet Armed Forces by the Ukaze of the Presidium of the Supreme Soviet of 9 October 1942. Since then, comprehensively trained and experienced one-man commanders who are selflessly devoted to the people, the socialist motherland, and the cause of communism are standing at the head of the army and navy collectives--subunits, units,

ships, large units, military installations, and educational institutions. They bear full responsibility to the Communist Party and the Soviet government for the constant combat and mobilization readiness of the troops entrusted to them, for the combat and political training, indoctrination, discipline, and political-moral state of the personnel, for the condition of the armament, combat equipment, and transport, and for material-domestic and medical support of the men.

Under contemporary conditions, the role and significance of one-man command have increased even more. This has been caused by a number of circumstances and, primarily, by the necessity to maintain the high combat readiness of the Soviet Armed Forces. Special significance is now acquired by centralized, firm, and at the same time flexible control of the troops.

The Soviet officers are worthy representatives of their people. They are the basis, the backbone of the army and navy, and the dependable support of the Communist Party and the Soviet government in the Armed Forces. To them belongs the leading role in the training and indoctrination of the Soviet servicemen and in ensuring the constant combat readiness of the Armed Forces.

The officer's profession is honorable and important. This is especially urgent in the light of the lofty requirements which are imposed on the contemporary leader by the 25th Party Congress. Whatever post the officer may occupy, the basis of his activity is formed by the striving to give all his knowledge and experience to the cause of the party, his military duty, and the attainment of high indices in the training and indoctrination of subordinates and the strengthening of combat readiness. The Minister of Defense of the USSR, Marshal of the Soviet Union D. F. Ustinov, said of the Soviet officers in a report at the ceremonial meeting devoted to the 60th anniversary of the Soviet Armed Forces: "The motherland has entrusted them with its most treasured possession --our remarkable youth which they must train in military affairs, indoctrinate and, when required, lead into battle. And the Soviet officers are justifying this faith with honor and accomplishing their military duty with a high sense of responsibility."

Truly scientific troop leadership presumes the ability of each officer to conduct the practical application of Marxist-Leninist methodology. The Communist Party always devoted and is today devoting primary attention to seeing that our leader personnel, to include military leaders, have mastered a scientific world outlook and the correct methodology for the solution of theoretical and practical problems along with excellent knowledge of matters. The method of dialectical materialism permits the officer personnel not only to understand the present correctly, but also to see tomorrow's military affairs and to solve correctly current and long-term problems in ensuring the constant high combat readiness of the troops.

The most important condition for the successful activity of the officers is mastery of the ideological wealth in the classical works of Marxism-Leninism, the decisions of the 25th CPSU Congress, the new Soviet constitution, and materials devoted to the 60th anniversary of the Great October and the Soviet

Armed Forces. Profound mastery of the theoretical propositions and conclusions presented in the works of Comrade L. I. Brezhnev, in his speeches during his trip to the rayons of Siberia and the Far East, and in his speech at the 18th Komsomol Congress permits military personnel to have a clearer understanding of their role and place in the matter of raising further the defensive capability of the Soviet country and strengthening its Armed Forces and to accomplish their service duties more effectively.

In the system of Marxist-Leninist training our officers are studying a broad range of questions which disclose the Lenin ideas on the defense of the socialist fatherland, the material and socio-political bases for the country's defensive capability, and the combat might of the Soviet Armed Forces. A prominent place in their theoretical training is occupied by the problems of a developed socialist society, the Soviet way of life, socialist democracy, and the unity of constitutional rights and the duties of the Soviet citizen. Great attention is devoted to exposing the aggressive policy of imperialism, bourgeois and revisionist ideology, and the anti-Soviet, anticommunist essence of Maoism.

Marxist-Leninist tempering permits the officers consistently to implement the principle of party spirit in ideological-indoctrinational work and to mold in the men necessary moral-political qualities and a readiness for the armed defense of the socialist fatherland.

At present, when the international situation is characterized by increased activity on the part of the forces of militarism and reaction which are trying to wreck detente and give impetus to a new aggravation of tension and to a further arms race, the instructions of V. I. Lenin sound extremely timely. In them, he points out that it is necessary to follow vigilantly the intrigues of the imperialists, to treasure the defensive capability of the country and the army as the apple of their eye, and to prevent carelessness and a relaxation of vigilance.

In strengthening the country's defense, the Communist Party is steadfastly guided by V. I. Lenin's teaching on the defense of the socialist fatherland. The basic ideas of this teaching found profound reflection and creative development in the program of the CPSU, the decisions of party congresses, in the decrees of plenums of the CPSU Central Committee, and in the Soviet constitution.

The Soviet Armed Forces have been assigned special responsibility for the defense of the country. Their constant combat readiness depends on many factors and, primarily, on the ability of the officers to lead subordinate subunits, units, and ships in a qualified manner, on the far-sightedness of their operational-tactical forecasts and reality of their concepts and plans, and on their ability to maneuver men and equipment flexibly and in a mobile manner. All these qualities are generated by stubborn labor and by persistent and purposeful training. Therefore, it is necessary to introduce more widely into troop practice progressive methods of combat control and everything new that has been introduced into this field by the scientific-technical revolution.

The increase in the role of officer personnel in the training and indoctrination of subordinates is caused by the ever greater complication of the training

process and by the increase in its intensity. The planning of combat and political training, the conduct of combined exercises, the field training of the troops, checking the course of training and indoctrination, the creation and improvement of the training-material base, and many other important problems are solved under the leadership of the commander and with his most direct participation. The commander constantly maintains in the collective an atmosphere which would engender in each serviceman a sense of constant personal responsibility for the outstanding study of new equipment and its skillful mastery.

In order to accomplish combat training tasks successfully, each officer is striving for profound knowledge of contemporary armament and equipment, to be able to utilize them effectively under various combat conditions, and to master the procedure to teach subordinates the skill of destroying the enemy at great ranges and with the first round, launching, or pass. The officers are sparing neither time nor efforts to attain the heights of combat skill.

For the more effective use of the combat capabilities of contemporary weapons and combat equipment, the officers are improving the tactical training of the troops in a comprehensive manner, devoting attention not only to the personal state of training of the individual fighter but also to the high combat coordination of the troop collectives: the crew, section, subunit, unit, and ship. The ever broader equipping of the armed forces with collective weapons requires that the officer have the ability to organize joint work, mutual assistance, and clearly coordinated actions of the men correctly. In the end, the course and outcome of the accomplishment of big and important missions depend on this.

Answering for all aspects of the military collective's life and activity, the one-man commander is the authoritative head of this collective. The dual nature of the leaders' authority (official and personal) also determines two basic directions in the work to strengthen one-man command. The first direction is the improvement of the state-legal status of the armed forces' command personnel, that is, work on strengthening the bases of commanders' official authority. Here, we should stress the significance of the new general military regulations approved by the Ukaze of the Presidium of the Supreme Soviet in July 1975. These regulations increased the responsibility of the one-man commanders and expanded their rights and duties both in peacetime and in wartime.

The second direction is work on strengthening the personal authority of the commander. This important task is accomplished by his constant acquisition and further improvement of his personal professional and moral qualities. Such factors as honesty, conscientiousness in matters, sincerity, cordiality, and good comradeship in relations with people which are subordinate to the moral qualities of commanders are especially sensitive. These qualities are instilled by various work forms, but most important for us is the strengthening of party influence on all aspects of officer activity. It reliably ensures the firmness of Leninist norms and traditions in relations between leaders and subordinates.

In struggling for the Lenin style of leadership, the party teaches party, soviet, and military cadres to study deeply, generalize, and analyze daily work experience and to disclose and eliminate shortcomings and errors and their causes.

A sense of what is new, the ability to seize upon useful undertakings in time and develop the creative initiative of the men which is directed toward a further increase in the effectiveness of the training and indoctrination of the personnel--these are the precious qualities of each commander. In working with people it is not general appeals which are needed, but a deep penetration into the essence of each matter, a study of the secrets of the best servicemen's achievements, effective propaganda of leading experience, and timely assistance on the spot.

A scientific approach to leadership also properly requires high professional style in the work of the officer personnel. And here, much depends on the clear planning of combat and political training. A practicable, well thought out plan disciplines people and mobilizes them for the high-quality accomplishment of assigned missions. Of course, the success of matters is not ensured by the plan itself, but by daily organization of work on its implementation. Special significance is had here by the personal plans of commanders and chiefs. They are an effective means for combating notorious sluggishness and permit distinguishing the main thing and seeing the prospects for the development of events.

The equipping of the armed forces with complex combat equipment and armament and the nature of contemporary battle repeatedly increase the significance of discipline and the clarity of actions within each troop collective. Even insignificant violation, by even one serviceman, of the instructions and manuals on operation and the preparation and combat use of weapons and equipment can reduce the efforts of a large collective to nought, serve as the cause of a breakdown, or frustrate the accomplishment of a combat mission.

"Now," said Comrade L. I. Brezhnev, "when the decisive role in military affairs belongs primarily to collective types of weapons and when the success of their employment depends on the skillful and coordinated actions of many people, exceptional significance is acquired by a high level of organization, constant self-control, and irreproachable execution by each one. Even individual manifestations of carelessness and indiscipline on the part of servicemen may lead to serious consequences" ("Leninski kursom" [By the Leninist Course], vol 2, p 50).

Clearly, officer personnel are zealous fighters for high discipline. The Interior Service Regulations oblige each commander and chief to serve as an "example of the strict observance of moral and ethical standards of behavior and the irreproachable accomplishment of the requirements of the Soviet laws, the military oath, military regulations, and his service duties" for his subordinates. The officer's high self-demandingness, exemplary performance of service, and precise execution of the orders of senior commanders also

discipline the personnel. The skill and ability of the commander to look at himself critically and constantly analyze his work, behavior, and attitude toward his subordinates are very important for strengthening one-man command.

Military service and the moral standards of the officer collective raise the personal example of the chief to the rank of one of the leading methods for indoctrinational influence on subordinates. There are many very fine lines in working with people and it is the skill of the teacher to sense these lines at all times and in no case permit demandingness to be replaced by coarseness. Unfortunately, some officers, especially young ones, try to "compensate" for poor knowledge of matters and a shortage of experience in working with subordinates by extreme strictness and, at times even coarseness, forgetting that coarseness and tactlessness have nothing in common with genuine demandingness and only cause a loss of the commander's authority.

In the book "Malaya Zemlya," Comrade L. I. Brezhnev writes: "Even if a person made a mistake, no one has the right to insult him by shouting.... Those who permit themselves to deviate from this truth which is immutable for our system hopelessly compromise themselves and damage their authority."

In another of his books, "Vozrozhdeniye" [Revival], Comrade L. I. Brezhnev stresses the exceptional significance of the correct indoctrination of personnel and the combination of confidence and respect for people with principled demandingness. The leader must know his personnel as well as possible and know their weaknesses and shortcomings but, at the same time, it is especially important to see and direct their strong sides for the benefit of the matters. If a person knows the matter and is devoted to the cause, and if the common good is achieved, then he should be supported even if he erred in something. It is just this approach which instills in people the striving to demonstrate their abilities most completely, to work with the greatest return, and to keep from becoming complacent with what has been achieved.

Comrade L. I. Brezhnev writes that he valued and values in people primarily persistence, independence of thought, competence, a keen sense of what is new, and the ability to note the initiative and creativity of the masses in time. It is also important for the leader to have the ability not to substitute for other personnel but to have confidence in them, help them, and check them, that is, the ability to distribute personnel and organize collective work. This permits the best use of the experience and knowledge of people, increases their responsibility, and protects against errors. In collective work, it is necessary to maintain a spirit of creativity, and innovation; here "willful" methods and shouting are unacceptable.

The thoughts and recommendations expressed in the books "Malaya Zemlya" and "Vozrozhdeniye" have tremendous significance for our officers since life imposes increased requirements on the personnel. A military person, an officer, finds such qualities as independence, initiative, and creativity in the solution of all problems especially important. Without them, it is impossible to organize correctly the entire complex of measures of combat and political training in peacetime and, furthermore, attain victory in battle.



It is known that the commander enters a struggle with the real or hypothetical enemy long before the start of combat operations when the latter is trying to implement his plans which are directly opposed to our interests. As a result, the possible emergence of situations which are completely unforeseen ahead of time is not excluded. And in order to accomplish the assigned mission successfully, the commander must implement his concept firmly but, at the same time, be as flexible as possible in its practical realization and in the search for new solutions prompted by the development of the situation.

The successful activity of officers in any post depends to a great extent on how they influence the status of party-political work in the military collectives. The 25th CPSU Congress gave a high grade to party-political work conducted in the Armed Forces. This grade imposes even greater responsibility on the officers for the effective indoctrination of subordinates and obliges them to have daily influence on all aspects of service by personal example. It is the duty and the calling of the commander to rally the military collectives and make socialist competition more active, directing the political and creative enthusiasm of the personnel toward the further raising of combat readiness of the units and ships and the strengthening of discipline, organization, and order.

Thus, under contemporary conditions exceptionally high demands are imposed on the political, professional, and moral qualities of the one-man commanders. The molding of these qualities in our command personnel is a task of primary importance.

Military councils, commanders, political organs, and party organizations are constantly working on strengthening one-man command and are concerned about instilling a Lenin style of leadership in commanders. Appointed as one-man commanders are the best trained and authoritative officers who are able to rely daily on the party and Komsomol organizations and officer collectives and who display party spirit and a state approach in everything. Direct work as members of party election organs, participation in theoretical seminars, conferences, and meetings of party activists, attendance at sessions of the military councils and reports at them--all this contributes to the party indoctrination of the one-man commanders, the raising of their maturity, and an increase in the experience of troop leadership.

In the interests of a further strengthening of one-man command, the military councils and political organs are conducting an entire system of organizational and ideological measures which are directed toward instilling in the servicemen love for their commanders and representatives of Soviet power. In explaining the increased role and responsibility of the officers in the training of the troops and the attainment of victory in contemporary war, the party sees that all the men and all Soviet people are imbued with even greater respect for them.

An important stage in work with the officer personnel is the efficiency report which serves as a stimulus for the further growth of each officer, the development of his favorable qualities, and the elimination of shortcomings. Attaining

objectivity of efficiency reports, commanders, political organs, staffs, and personnel organs make a deep study of the people in practical work and evaluate their political, moral, volitional, and professional qualities, their erudition, and their abilities right down to the individual features of their character.

It is a high honor to be an officer of the Soviet Armed Forces. The confidence of the party and the people who have placed in their care the mighty weapons and the men of the Armed Forces who are boundlessly devoted to the motherland is great. This confidence places on all officers tremendous responsibility for the accomplishment of their sacred duty by the Soviet Armed Forces--to be constantly on the alert, guard the peaceful labor of the Soviet people vigilantly, and stand their combat watch tirelessly so that no intrigues of aggressive forces can interfere in the forward movement of our society toward communism.

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## METHODS OF IMPROVING QUALITY IN MILITARY REPAIR FACILITIES REVIEWED

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19 Jun 78 pp 35-41

[Article by Col (Ret) F. Yakovlev: "The Main Thing--Efficiency and Quality"; notes on competition at military enterprises]

[Text] The military repairmen, just as all Soviet people, are working selflessly on accomplishing the tasks of the third year of the Tenth Five-Year Plan. A mighty surge of energy and creative forces was caused among them by the adoption of the new constitution of the USSR, the celebration of the 60th anniversary of the Great October and our Armed Forces, the decisions of the December plenum of the Central Committee CPSU, and the trip of the General Secretary of the Central Committee CPSU and Chairman of the Presidium of the Supreme Soviet USSR, Comrade L. I. Brezhnev, to rayons of Siberia and the Far East.

Specific tasks have also been placed before the workers and employees of the Soviet Army in the letter of the Central Committee CPSU, Council of Ministers USSR, the VTsSPS [All-Union Central Trade-Union Council], and the Komsomol Central Committee to the party, soviet, administrative, trade union, and Komsomol organizations and the workers of the Soviet Union about the initiation of socialist competition for the accomplishment and overaccomplishment of the 1978 plan and intensification of the struggle to increase the efficiency of production and the quality of work. They subordinate the many years' experience and high skill multiplied by love for the Leninist party and the socialist motherland to one goal--the successful implementation of the majestic program outlined by the 25th CPSU Congress.

The military repairmen are constantly searching for internal reserves for the continuous growth of labor productivity. For combat equipment and armament require special strength, reliability, and durability. It is on this which the administration, party, trade union, and Komsomol organizations of the enterprises are concentrating their efforts. They are constantly keeping in their field of view questions on the wide use of scientific-technical achievements and leading experience and raising the efficiency of production and the quality of the output.

These problems are solved in an integrated manner at the enterprise led by communist Engineer-Colonel K. Doronin. This enterprise is one of the oldest in the Soviet Army. It was founded in 1924. Its labor and combat biography numbers many remarkable pages. Thus, in the years of the Great Patriotic War the workers of the enterprise sent to the active army more than 129,000 railroad carloads of repaired equipment and armament. The worker collective is multiplying its combat traditions by its labor victories. In 1975, it was awarded the title, "Enterprise of high style in production and organization of labor." The successes of the military repairmen are especially great in the Tenth Five-Year Plan. The enterprise accomplished its two-year plan for the basic technical-economic indices by the 60th anniversary of the Great October. For the attainment of the highest results in the first year of the current five-year plan, it was awarded the Challenge Red Banner of the Central Committee CPSU, the Council of Ministers USSR, the VTsSPS, and the Komsomol Central Committee. During the last two years, it was three times awarded prize-winning places and the Challenge Red Banner of the Ministry of Defense USSR and the Trade Union Central Committee. Many workers have been cited with orders and medals. In 1976, the enterprise was awarded the title of "Collective of Communist Labor."

Of course, the successes did not come by themselves. Technically substantiated output norms, the scientific organization of labor, and a well organized system of financial and moral rewarding of people for the overaccomplishment of shift assignments and rhythmic work are widely employed. All those who come here for the first time are always attracted by the high style of the work sites and production, the smoothness in the work of the people, their search for what is new and advanced, and the sincere interest in the further development and improvement of repair matters. And, let us say directly, an exceptional role was played by the introduction of an integrated system for the quality control of labor and output. By the way, here it received practical employment for the first time among related enterprises.

The administration and party, trade union, and Komsomol organizations adopted the new system gradually. Back in 1967, the Saratov system of defect-free manufacture of products in which the executor himself is the first checker was received with great interest and widely propagated. It introduced a systems element into the struggle to raise the quality of products. Employment of the Saratov experience permitted a comparison of the achievements of individual workers, production sectors, and shops and the stimulation of their labor. Here, the main criterion was the percentage of acceptance of products on the first submission.

However, practice showed that this system cannot solve the problem completely. In fact, in ensuring the high quality of the workers' labor, it does not evaluate the efforts of all the remaining sectors of the production process: foremen, production engineers, supply personnel, and designers. This could not fail to hinder the further development of production and the increase in its efficiency and quality of output.

In 1974, the enterprise was headed by Engineer-Colonel Kuz'ma Andreyevich Doronin--a person of high technical erudition and an expert in his trade who has studied production and technology down to the finest details. He strived to introduce an integrated system for the quality control of labor and output into practice as quickly as possible. By the end of 1975, he succeeded in implementing what had been planned. Let us add that on the basis of generalized experience Kuz'ma Andreyevich prepared and defended a dissertation on the subject, "The organization of control and incentives for increasing the quality of industrial production." He was awarded the scientific degree of candidate of economic sciences.

Of course, the enterprise's collective did not begin to work from scratch. By that time, many of the enterprises of the country and the Soviet Ministry of Defense already had interesting experience in the introduction of the integrated system for controlling the quality of labor. On the initiative of the communists, it was decided to study their secrets. The chief of the enterprise and specialists visited 48 plants of Moscow, Minsk, L'vov and a number of other cities of the country, the VDNKh [Exhibition of Achievements of the National Economy] USSR, and army production collectives and they armed themselves with everything progressive and useful. The party committee also joined actively in the work. It began a comprehensive study of the enterprise's quality indices. Problems in the integrated system for controlling the quality of labor and output were discussed many times at party meetings and at sessions of the party committee and party bureaus. In particular, the results of trips to leading plants were examined at an expanded session of the party committee with the participation of the chief specialists, secretaries of party organizations, and chiefs of shops and departments. At the session, there was a businesslike discussion of the necessity to strengthen communist interrelationships in the collectives, scientific methods in the organization of labor, and a new system for the control and checking of the quality of products being produced. The attainment of a vanguard role of all communists in this important matter was also examined. The session also discussed the economic education of production leaders and checking-service personnel and raising the labor discipline of people. A decision was adopted by the party committee. Its implementation played a significant role in the strengthening of the integrated system at the enterprise.

A technical council was formed and a network schedule for the introduction of the advanced system was prepared. Interesting ideas and suggestions of people were considered at open meetings of party groups and shop party organizations. In essence, all remarks, opinions, and advice of workers, engineers, and technicians were considered. Communists and trade union and Komsomol activists explained to the people the essence and significance of the integrated system for the control of the quality of labor and output and told how important are the high responsibility and discipline of each worker. In the shops and departments meetings took place at which the initiative of the leaders and communists received complete support and approval.

There was also concern that the collectives maintain the required psychological attitude and an atmosphere of intolerance toward slackers, violators of labor discipline, and poor workmen. All forms of political indoctrination work were used to explain to people that not only their well-being, but also the good reputation of the entire enterprise depend on the results of each one's labor.

Of course, in order to move on to a higher quality stage of production organization, it was necessary to ensure a firm material base, reconstruct existing shops, and mechanize and automate technological processes and labor-intensive operations. Communist-innovators of production--Engineer-Captains V. Mikholap and Yu. Blokhin, shop foreman I. Tolkunov, lathe operator A. Filippov, and others created a number of new flow lines with automatic addressing of the articles, special accessories and mechanisms, and conveyers.

The production directorate gave qualified assistance to the enterprise as did the Soviet Ministry of Defense, its leaders, and specialists. The repairmen were aware of this daily, in all their good deeds and undertakings, and they received much valuable advice and many recommendations from them. With the assistance and participation of the senior comrades, a scientific-practical conference on the subject, "Organization of control and the stimulation of an increase in the quality of labor and output at repair enterprises," was conducted successfully at the enterprise. To a great degree, it contributed to the introduction of the integrated system.

What is the essence of this system? It absorbed the best Soviet experience and achievements in the science of control. The system ties together organizational, economic, technical, socio-indoctrinational, and other measures. It considers both internal ties (the activity of the production shops and engineering, repair, transport, warehouse, and other services) as well as external ties (supply, marketing, maintenance of products produced, and so forth). Its basis is formed by a qualitative estimate of the quality of labor and output of subdivisions and individual workers with subsequent financial and moral incentive depending on how high the production quality is. This estimate is accomplished using three complex quality indices: the coefficient of quality condition, the turnover of output to the OTK [department of technical control] on the first presentation, and ties with the users. In this regard, the seriousness of individual violations of labor and technological discipline, cases of rejected work, complaints, and so forth are also considered. A coefficient is calculated monthly for each subdivision of the enterprise and the appropriate grade is assigned.

The system solves not only economic tasks but also moral relations between people. If a worker understands that his labor is evaluated objectively and that in this case he proves to be far from the best specialist in his work, he automatically wants to pull himself up. The success in the operation of the integrated system depends in tremendous measure on how political-indoctrinational work is organized in the collectives. A chart of the turnover of output with first presentation is maintained in the brigades and on the sectors. If the department of technical control, for example, returned an article to the

shop, then this is considered as an emergency situation which should alert the entire labor collective. In this case, a blue triangle is placed opposite the name of the executor on the chart or, as it is called, a "black and blue," and the worker loses his bonus. He also bears moral responsibility. For the condemnation of his blunder by his comrades is an effective indoctrinational measure.

So-called quality commissions are functioning in each basic shop. They are headed by the shop chiefs. The commissions include the foremen of the OTK, production foremen, production innovators, and the leader of the shop public organizations. They systematically analyze the activity of their subdivisions and determine ways to improve quality indices in every way. Inspection-competitions are conducted annually at the enterprise. Their goal is to attain genuine style at the work sites and high output quality. The turnover of output to the OTK on first presentation increased to 99.5 percent. Operational rejects have been more than cut in half. The number of deviations from the technical specifications of the standards and instructions has been cut in half. For the last four years, the enterprise has had no complaints on the repaired equipment and armament. An automated system for production control is now being introduced at the enterprise. It permits evaluating the quality of labor and the output of all workers and on all production operations during a day, week, month, and year.

The struggle for a further rise in the efficiency of production and quality of output comprises the basis of the organization of socialist competition in the labor collectives, stimulates the activity and creative initiative of workers and employees, and improves the entire production activity of the enterprises. The letter of the Central Committee CPSU, Council of Ministers USSR, VTSPS, and the Komsomol Central Committee stresses that "improvement of the organization of socialist competition and increasing its effectiveness are the primary duties of party, soviet, and administrative organs and trade union and Komsomol organizations.... It is necessary to see that the obligations and counterplans are mobilizing and consider available reserves."

Guided by the instructions of the party, the administration and party, trade union, and Komsomol organizations of the military repair enterprises are constantly and persistently improving the direction of socialist competition and are using it skillfully to increase the productivity of labor, master new technology, improve the quality of the output, introduce scientific organization of labor, and strengthen labor and production discipline.

Dissemination is also merited by the experience of the repair enterprise which is headed by Candidate of Technical Sciences Engineer-Colonel P. Papyan. For a long time already, this collective has been distinguished by attention to work quality. It was the first in the Ground Forces to introduce the Saratov system of defect-free manufacture of products and then defect-free labor. The integrated system for control of the quality of labor and output was introduced here in 1971 for the first time among related enterprises. A new procedure for the organization of socialist competition was developed on its basis. It

ensures a more thoughtful, scientifically substantiated approach to the working out of obligations which now, as a rule, are distinguished by great economic substantiation and specificity. They concern a broader complex of problems and, at the same time, are concentrated on the decisive directions and aimed primarily at higher production efficiency and work quality.

Recently, the obligations of the enterprise's workers have become even more objective, pithy, and comparable. In them, bolder reflection is found by the increase in the production of output through an increase in the productivity of labor; an increase in the quality, reliability, and durability of articles; the efficient use of fixed and working capital; mechanization and automation of production capacities; a reduction in the costs of production; economic expenditure of financial and material resources; a reduction in personnel turnover; and the wise use of working time.

All pieceworkers are competing in accordance with integrated plans. Each of them is assigned a task for volume of production in norm-hours and for an increase in the productivity of labor for a day, month, year, and five-year plan. The personal plans of the workers permit determining the positions of brigades, sectors, shops, and the enterprise as a whole in the competition.

As is known, under present conditions an increase in the efficiency of production and quality of work is unthinkable without the active and fruitful labor of the engineers and technicians. They compete in personal creative plans, the results of whose accomplishment are summed up once per quarter by the commissions of experts of shops and departments. The winners of the competition are rewarded in accordance with the regulation which has been worked out. Brigades and groups of creative cooperation consisting of technical-engineering personnel and worker-innovators have shown up well. There are more than 60 of them at the enterprise.

A good reputation is had, for example, by the creative group which includes the chief of the tool shop, V. Myshonkov, and the machinist-patternmaker, P. Sedlyar, who has been working at the enterprise for more than 30 years. They are the authors of many rationalization suggestions, the introduction of which into practice provided a large economic impact. They recently developed and introduced into production an original device. Its employment permitted increasing the productivity of labor when manufacturing parts 12-fold!

The communists--the initiators and successors of many patriotic undertakings--are in the vanguard of the socialist competition. Thus, the machinist brigade headed by CPSU member V. Kvashko supported the movement of the Muscovites under the slogan, "Workers' guarantee for the five-year plan of quality." It accomplishes its tasks with high technical-economic indices ahead of schedule each year. The brigade works rhythmically, without disrupting the schedule, smoothly and harmoniously. On the initiative of the communists, a competition is under way for the right to be called, "Expert of quality" and "Subdivision of outstanding quality." Now, at the enterprise about 400 people have won the right to work with their personal mark on the authority of the OTK. Among them are



machinist V. Korobko, milling machine operator N. Konovalyuk, planer operator I. Korzha, and others. All brigades are competing for the title of "Subdivision of outstanding quality." Twelve percent of the workers are turning in production with a certificate of guarantee.

The struggle to increase the quality, reliability, and durability of repair of combat equipment and armament has become a matter of worker honor at the enterprise. Weekly, each Wednesday, so-called days of quality evaluation are conducted here. Prior to this, as a rule, raids of peoples' controllers and "Komsomol Projector" are organized. The results of their checks are discussed at party, Komsomol, and worker meetings of the subdivisions. This practice helps to disclose internal production reserves and instills in the members of the collective a sense of personal participation in the common interests.

Publicity of socialist competition is systematically ensured at the enterprise. Various forms of graphic agitation are used for these purposes. Special displays and panels of quality and style of work sites are enthusiastically prepared in all subdivisions. Each week, they provide complete information on the work of the collective and of each production worker. Special panels have been installed under the title "Signal" which bring to the attention of the workers not only the names of the winners, but also of those who are holding back the collective's advancement, who are not meeting the daily plan and schedule, and how this is affecting the accomplishment of the production program as a whole.

Competition at the enterprise is also strong in that here a clear system of monitoring the accomplishment of the obligations which have been assumed is functioning. A headquarters for information on the daily summing up of the competition's results has been established and is functioning successfully. It generalizes leading experience and tells about those who have distinguished themselves and about those workers who have fallen behind in "Molniya" [Lightning] and "Trevoga" [Alarm] which are hung weekly near the passageway. This is reported three times a day over the internal radio net. This information contributes to increasing the conscientiousness and responsibility of the personnel and helps the administration and party, trade union, and Komsomol organizations to always have knowledge on the state of affairs at the production works, determine bottlenecks in the subdivisions, and adopt measures to prevent possible breakdowns in work and idling. The payment for labor without advances has been introduced.

The results of the socialist competition in the shops and departments are summed up monthly at general meetings where class ranks are awarded to participants and brigades. The winners are awarded challenge banners and monetary prizes. In honor of the shops which are the winners of the competition, the flag of labor glory is raised in a ceremonial situation.

Well thought thorough and purposeful organizational and indoctrinational work on improving socialist competition contributes to the attainment of permanent

high production indices. In accordance with the results of the All-Union Socialist Competition of 1977, the collective has been awarded the Challenge Red Banner of the Central Committee CPSU, Council of Ministers USSR, VTsSPS, and Komsomol Central Committee.

The tone is set by the party organizations in all matters and undertakings connected with the increase in production efficiency and output quality and socialist competition. This is the leading and organizing force of the enterprises' collectives. They are doing much to implement the decisions of the 25th Party Congress and plenums of the Central Committee CPSU, to accomplish the assignments of the Tenth Five-Year Plan successfully, and to ensure a further growth in production. The party organization of the enterprise which is headed by Ya. Dyakiv has accumulated instructive and useful experience. This communist has been working for more than 18 years already. He grew from a regular worker to an engineer--deputy chief of a shop--and then became secretary of the party committee. Characteristic of this party committee's work style are purposefulness, specificity, an integrated approach to the solution of problems, and the high exactingness of the communists toward themselves and toward each other. In their activity, they constantly rely on the party organizations of the shops, departments, and other subdivisions and direct their work toward increasing the efficiency of production, the quality of output, and the effectiveness of socialist competition and indoctrination of people in the collectives.

The party committee hears the reports of the secretaries of the party organizations concerning the leading role of the communists in the accomplishment of production plans and socialist obligations, the introduction of the achievements of science and technology into production, the improvement of technological processes, and so forth. I refer to the following example. Recently, the party committee discussed a report by the party bureau secretary of one of the shops to the effect that they are struggling in the subdivision for high quality of products produced. It cannot be said that the state of affairs in the shop was alarming. But recently instances of the return of parts from the OTK became more frequent here and frequent criticisms by the control foreman were directed toward individual workers who had not been struggling for high quality of output. The members of the party committee approached the evaluation of the work by the shop's communists in an exacting manner. In the decision which was adopted, the party committee obliged the party bureau to adopt measures for the mobilization of the workers, and first of all the CPSU members, for a further increase in the quality of the output being produced. They called the attention of the shop's communists to the necessity to ensure stability of the technological process, improve their supply of tools, and improve the style of the work sites. On the recommendation of the party committee, socialist competition was initiated even more widely in the shop for the output of products of only outstanding quality and for the right to work with one's personal mark and with self-checking. Things in the shop began to improve. It is now one of the leaders in the enterprise.

The party committee and party organizations of the subdivisions are displaying great concern for increasing the vanguard role of the communists in labor,

socialist competition, and discipline. All CPSU members and candidate members from among the workers and employees are leaders of production and shock workers of communist labor. There are about 300 communists at the enterprise. They are all on the decisive production sectors. More than three-quarters of them are engaged directly in the shops, on the sectors. This contributes to the strengthening of party influence on all aspects of the life and activity of the labor collectives; it permits the party committee to know the state of affairs at the sites in a comprehensive manner and to render effective assistance to the administration in the accomplishment of practical tasks.

In the work of the party organization, the most important place is occupied by instilling socialist labor discipline in the people. Various forms and methods of political-indoctrinational work are used for this: lectures, reports, talks, political information sessions, thematic soirees, and schools of communist labor and economic knowledge. An atmosphere of intolerance toward violators of labor discipline has been created in the labor collective.

The enterprise's trade union committee (chairman--communist P. Krachkovskiy) is functioning in a combat manner. An important place in its activity is occupied by propaganda and the implementation of the leading experience of the production innovators and the best collectives. The trade union committee participates directly in determining the value and importance of various undertakings and ways and means for their dissemination. Questions of financial and moral rewards for competitors, monitoring the accomplishment of the obligations assumed by the workers, and so forth are discussed. Tutorship, lecture bureaus, schools of communist labor and economic knowledge, worker meetings, and a permanently operating production conference are widely used in trade union work.

From day to day, the military repairmen are attaining high technical-economic indices. They are filled with resolve to also labor henceforth in the shock-worker manner, to make the third year of the five-year plan a year of new achievements, and to make a worthy contribution to the further raising of the troops' combat readiness.

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#### NAVY DAY: CAPABILITIES OF NAVAL AVIATION NOTED

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[Article by Maj Gen Avn I. Tropynin, Navy Deputy Commander of Aviation  
for Political Affairs: "Wings Above the Sea"]

[Text] Together with all Soviet people, naval seamen are working with great inspiration to implement the historic decisions of the 25th CPSU Congress, decrees of the CPSU Central Committee plenums, and the premises and conclusions contained within the speeches by CPSU Central Committee General Secretary, Chairman of the Presidium of the USSR Supreme Soviet, Comrade L. I. Brezhnev. They avidly approve of the wise policy of the Leninist party, which is leading the Soviet people on the road to communism and which is displaying untiring concern over strengthening the motherland's economic and defensive power.

Naval aviation is an important part of the navy's strike forces. Its backbone consists of naval missile-carrying jets, carrier airplanes, and helicopters possessing powerful torpedo, missile, bomb, and machinegun armament as well as electronic warfare resources.

Naval missile-carrying aviation is one of the basic strike forces of the navy. It consists of supersonic jet airplanes capable of missions in remote regions of the oceans and armed with missiles and other powerful modern armament.

The combat capability of missile-carrying airplanes for annihilating surface ships is several times greater than that of torpedo-carrying airplanes and bombers.

High speed and great range permit them to strike large, highly mobile groupings of enemy surface warships and convoys on the seas and oceans, as well as at enemy ports.

Electronic ship seeking resources make it possible to detect a target at sea from a long range. The missile equipment of the airplanes permits them to perform strikes from great range without entering the zone of effective fire of ship antiaircraft resources.

The greater combat capabilities of missile-carrying aviation, the increase in missile launching range, and the capability for surmounting counter-measures by active shipborne antiaircraft defense forces and resources have made missile strikes by aircraft against marine objectives practically indefensible.

Antisubmarine aviation took shape as an independent arm in the postwar era; airplanes were outfitted with search and sighting complexes permitting them to search for and successfully fight nuclear, missile, and multipurpose enemy submarines in remote regions of marine and oceanic theaters of war.

The significantly higher training level of the personnel, arisal of new instruments and navigation systems aboard, and a qualitative change in creation of electronic resources have made it possible for airplanes to operate far from home and practically master the airspace of the seas and oceans.

Shipborne aviation has enjoyed broad development in recent years. Helicopters are becoming more and more an "inherent" part of surface ships, imparting entirely new combat qualities to them.

Participation of helicopters in the search for submarines not only broadens the field of vision of the ships carrying them but also significantly heightens their capabilities for stably tracking a detected enemy and increases the dependability with which he is struck by antisubmarine weapons.

The dramatic change in the technical flying characteristics of modern airplanes and in their combat capabilities has transformed marine aviation into oceanic, missile-carrying, antisubmarine, reconnaissance aviation based on the coast and aboard ships, and it has provided the possibilities for finding and, if necessary, destroying ships and submarines on the seas and oceans and executing strategic and grand strategic missions in interaction with other forces.

But the strength of the army and navy is not made up of just modern weapons and combat equipment alone. Man is the principal element. The soldier who has mastered the weapons and equipment has been and continues to be the army's decisive strength.

Naval pilots have glorious combat traditions that were accumulated by former generations. Naval aviation has produced pilots such as Hero of the Soviet Union A. V. Lyapidevskiy, the first twice-awarded Hero of the

Soviet Union of the Great Patriotic War B. F. Safonov, the world's first cosmonaut Yu. A. Gagarin, and pilots of the famous 1st Mine-Torpedo Regiment commanded by Ye. N. Preobrazhenskiy, the first to execute a bomb strike against the fascist animal's lair--Berlin. Naval aviation has produced 260 heroes of the Soviet Union, and the aerial giants A. Ye. Mazurenko, V. I. Rakov, B. F. Safonov, N. G. Stepanyan, and N. V. Chelnokov earned this title twice. During the Great Patriotic War 2 air divisions and 23 air regiments were reorganized as Guards formations, 50 units were awarded orders, and 41 formations were given honorary names.

In his memoirs "Malaya zemlya" (The Small Land) Comrade L. I. Brezhnev noted with great warmth the actions of Black Sea Fleet pilots. Fighter pilots selflessly defended Caucasian skies and the naval bases of the Black Sea Fleet. They took an active part in the battle of Novorossiysk. In one battle above this city pilot Mikhail Borisov executed two aerial rams, and pilots Nikolay Zinov'yev and Semen Mukhin rammed enemy airplanes at the approaches to Novorossiysk.

A company of junior aviation specialists commanded by Senior Lieutenant Tolkachev and Political Commissar Zakopayko fought stubbornly in defense of Novorossiysk on the land front. Naval airmen Kulikov, Kochetkov, Trofimenko, Zhaglo, Shevchenko, Zhashkov, and Mikhaylovskiy, nurse Anadskaya and many others fought bravely with the company.

Naval airmen displayed high moral-combat qualities in all battles requiring unprecedented steadfastness and self-sacrifice. Fighter pilot Leonid Belousov was given the nickname "Baltic Mares'yev." His fate in the war was unusual. Once during a landing following a combat mission he suffered an accident, receiving severe burns. Later due to severe illness he lost both legs, but nothing could break the combat spirit of the communist pilot. He fought until the end of the war, greeting the victory while still in the ranks. PRAVDA wrote the following on 11 April 1957 when L. G. Belousov was awarded the Hero of the Soviet Union title: "The Soviet people hold the acts of heroism of this person in admiration. Let his glory be known throughout the land, and let his whole life serve as an inspiring example to our young."

Many of the heroes and pilots in naval aviation, including the famous arctic ace Boris Safonov and the world's first cosmonaut Yuriy Gagarin, were raised by the defense society. The road of their development as professional pilots traveled through aeroclubs, glider schools, and glider and aircraft model circles.

The glorious acts of heroism of naval pilots are held sacred and multiplied by personnel of modern naval aviation, the units of which contain many graduates of the All-Union Order of Lenin and Order of the Red Banner Voluntary Society. In the last few years more than 800 persons were awarded orders and medals of the Soviet Union for high indices in combat and political training and for exemplary execution of combat missions. Forty-five

pilots and thirty-four navigators were awarded the honorary titles "USSR Distinguished Military Pilot" and "USSR Distinguished Military Navigator" for special services to the armed forces in assimilating new aviation equipment and weapons, teaching flight personnel, and performing accident-free flight work.

A typical trait of the military labor of personnel in naval aviation is, as is true with all soldiers of the Soviet Armed Forces, the persistent desire to master the latest aviation equipment and weapons and the principles of organizing interaction, control, and all forms of support.

Every day the naval pilots are persistently improving their combat skills, fighting for outstanding completion of flying assignments, multiplying glorious combat traditions, and competently surmounting the difficulties of combat training.

It was a time of routine night flying. The supersonic naval jets took off one after the other. An airplane piloted by Military Pilot 1st Class N. A. Antonenko also took off in the direction of the sea. The crew faced a difficult mission, and no one doubted that it would be completed successfully. The airplane found itself in complicated conditions above the sea. For 40 minutes the crew operated in an emergency situation, displaying high composure, endurance, and skill, and demonstrating an example of mutual understanding, solidarity, and friendship.

Day and night the naval pilots are ready to render assistance to disaster victims on the sea or ocean. Recently it was reported that a group of helicopter pilots with which political worker A. V. Drozd serves rescued some people swept out to sea. At night, in darkness, in the face of high winds and snow, crews commanded by naval pilots V. Gorbunov and A. Lavrent'yev removed people from floating ice and returned them to shore, displaying bravery and resourcefulness. In all they saved 171 persons. The airmen demonstrated high skills and a capability for executing the most complex missions.

Those who are performing difficult heroic service above the seas and oceans and those who are still making just the first steps on this road today are united by limitless devotion to the Communist Party, the motherland, and the people, and by a readiness to perform their constitutional duty in defense of the socialist fatherland.

Preparations for and celebration of the 60th anniversary of Great October and the 60th anniversary of the USSR Armed Forces, the words of greeting of the CPSU Central Committee, the Presidium of the USSR Supreme Soviet, and the USSR Council of Ministers to soldiers of the valorous USSR Armed Forces, and Comrade L. I. Brezhnev's speech aboard the cruiser Admiral Sinyavin provided a new impetus to political activity, creativity, and initiative in heightening the combat readiness of naval air units.

Naval aviation is experiencing broad development of a socialist competition for high-quality, effective completion of the missions of the jubilee year under the slogan "Dependably protect the socialist fatherland, be in constant combat readiness, persistently master weapons and equipment, and improve combat skills." Subunits in which officers V. Proskurin, V. Makartsev, and A. Frolov serve are leading the competitors.

The socialist competition among naval air units is aimed mainly at achieving high quality and effectiveness in the tactical flying skills of the crews, reducing the time required to make subunits and units combat ready, nurturing political alertness among the personnel, ensuring flight safety, and strengthening military discipline.

Organizing socialist competition, the commanders, political workers, staffs, and party organizations in the subunit in which Officer V. Proskurin serves managed to create an atmosphere of creative, businesslike exploration for the forms and methods of promoting the competition, of maintaining strict accounts on the socialist pledges adopted by every serviceman, and of maintaining constant control and rendering prompt assistance to collectives and individual servicemen in the satisfaction of their pledges.

Personal pledges have come to reflect the problems in heightening the ideological-theoretical level of the serviceman, improving tactical flying, military-technical, and special training, increasing the participation in efficiency work, and generalizing and disseminating the best experience more concretely. As an example in compliance with their pledges, officers S. Kosyakin, N. Glushko, V. Volosatyy, and A. Vetoshkin, who are experienced aerial warriors, developed and introduced new tactics resulting in a fourfold increase in the effectiveness of submarine search and detection. Officers G. Stepkin and N. Skotnikov developed improved methods for servicing and repairing equipment, permitting many specialists of the technical maintenance unit to promise guaranteed fulfillment of repair jobs on the units and machine units of combat vehicles.

Commanders, political workers, and party organizations have managed to develop a spirit of rivalry in the competition. From the first days that the competition was organized, the patriotic initiatives "An Associated Specialty for Every Soldier," "For Outstanding Results in Each Flight Shift and in Each Day of Combat Training," and "No Laggards When There are Outstanding Soldiers" enjoyed extensive development in the subunits. Competitions are held for best airplane takeoff, piloting techniques, navigation, antisubmarine missions, torpedo launching, bombing, aerial reconnaissance, aviation equipment preparation and operation quality, radio communication, landing approach, landing computations, and landing.

An efficiently organized socialist competition promotes successful completion of flight training missions. The qualifications of pilots and navigators have grown significantly. This collective was termed the best in naval aviation on the basis of the 1977 combat and political training results.



Measures for deep study of aviation equipment such as technical conferences, question-answer evenings, quizzes, and discussions on military-technical subjects have enjoyed extensive implementation in one of our best units. Military-technical lecture courses are always offered here under the guidance of Officer A. Kabanets, and lessons are regularly held in technical knowledge circles. Articles on military-technical subjects are regularly discussed, and the tactics of aviation during the Great Patriotic War and the experience of assimilating new equipment and employing it in battle under modern conditions are studied. The number of specialists 1st and 2d class and masters of military affairs has grown significantly during the competition, and officers V. Kovtun, M. Gubanov, A. Ruchkin, A. Yatmanov, O. Pustovit, L. Volosnikov, and V. Arkhipov were awarded the highest class qualification, "Naval Sniper Pilot (Navigator)." The good results the soldiers exhibited in their military work were rewarded by the USSR Ministry of Defense "For Bravery and Military Valor" banner and by perpetual Red Banners of the Komsomol Central Committee and the fleet's Military Council.

The complex combat equipment and weapons with which the troops are presently armed, the greater intensity of combat training, and the high intensity of day-to-day service demand ideological maturity, good technical training, sound moral maturity, and great physical fitness from naval airmen.

Soviet naval airmen from privates to generals share a common desire, a single need--to honorably fulfill the order of CPSU Central Committee General Secretary, Chairman of the Presidium of the USSR Supreme Soviet, Comrade L. I. Brezhnev, who spoke to seamen of the Pacific Fleet: "Improve your skills," Leonid Il'ich said, "improve your political training, carry the banner of the Soviet Armed Forces with honor!"

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## NEED FOR PHYSICAL TRAINING OF DOSAAF PILOTS URGED

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[Article by USSR DOSAAF Central Committee Senior Inspector I. Krishkevich and Cand Ped Sci R. Makarov]

[Text] Moments of difficulty fell to the lot of instructor pilot A. Rasshchupkin on finding himself in very complex conditions while piloting a MiG-17 airplane at an altitude of 10,000 meters. It would not be difficult to imagine what might have transpired, had the pilot not possessed such needed qualities as resourcefulness, strength of will, strong nerves, and precise motor coordination.

"All of these qualities," says Aleksandr Vladimirovich, "came to me with the help of constant physical training."

Here are two more examples. There were two instructor pilots. Both had graduated from the DOSAAF Volchansk Aviation Pilots School. On joining the aeroclub one of them quickly assimilated a new type of MiG-17 and is now successfully teaching students. The other, on the other hand, retrained with great difficulty for new equipment. The first devoted a great deal of attention to sports. The second had a passive attitude toward sports.

Flight work is unique in relation to its high nervous-emotional, volitional, and physical tension. The most effective resources shaping the qualities needed by a pilot both in initial flight training and in the process of his complex work are physical training and sports. In comparison with other resources of psychophysiological pilot training, they occupy a prominent place both in relation to shaping the qualities guaranteeing success in pilot training and in maintaining the qualities defining the dependability of occupational skills.

The high level of occupational training exhibited by many DOSAAF sportmen-pilots indicates a dependable union of flying skill and sports. Famous master pilots such as Igor' Yegorov, Viktor Letsko, Lidiya Leonova,

Mikhail Molchanyuk, Valentina Yaikova, Lyubov' Nemkova, and Yevgeniy Frolov are clear testimony to this. Their association with sports helps them preserve their youth, energy, and high efficiency, and to achieve high indices in international competitions.

Pilot physical training is subdivided into general and special. General physical training has the goal of improving the pilot's moral-volitional qualities (boldness, decisiveness, coolness, bravery, purposefulness, and so on); nurturing agility and endurance; strengthening health and tempering the body; developing a high level of efficiency.

Physical exercises are an effective health-improving resource having a favorable effect on the condition of all of the body's life-support systems--cardiovascular, respiratory, the central nervous system, and metabolism.

Here is an example: Students at a flight school exhibiting low indices in reaction rate and attention distribution were ordered to play basketball and perform exercises developing the needed qualities for 2 months. After 24 lessons the students improved their reaction rate indices by 14.1 percent, their attention distribution and switching indices by 12.1 percent, and their ability to measure forces by 9.4 percent. They also became more successful in flight training. The experimental subjects spent 25.6 percent less training time on flight training than did students with similar shortcomings who had not undergone a course of special physical training.

One of the criteria of a pilot's readiness for performance of a flying assignment is his dependability--the stability of his mental sphere, psychophysiological functions and qualities, and occupational activity in the presence of stress factors.

At the same time research shows that the stability of mental (intellectual) efficiency and occupational activity in extreme conditions depend significantly on psychophysiological reactions to an extreme stimulus. Special physical training resources could be used to effectively shape a pilot's moral-volitional qualities and develop the body's resistance to accelerations, its spatial orientation, its resistance to rocking and a lower oxygen concentration, to breathing at excess pressure, and in the presence of other factors.

The potential for mastering the pilot's specialty quickly and reliably must be the dominant criterion used to define a student's occupational suitability for flight training.

First of all students wishing to become sportsmen-pilots must have high moral-volitional qualities. At the same time occupational suitability for training in a flight school or aeroclub must be determined on the basis of a program containing the basic qualities ensuring success

in flight training: Attention distribution and switching; precise muscle sense and motor coordination; capability for altering the structure of motor acts; quality of memory and thinking; capability for working in limited time or in a lack of time; psychophysiological resistance to negative flight factors; sufficient endurance, strength, agility, and speed.

The USSR DOSAAF Central Committee Directorate of Aviation Training and Aviation Sports, committees, and clubs devote a great deal of attention to physical training for flight personnel. The sports base is being improved, and athletic gear and property is being acquired. The post of assistant chief for physical training has been introduced into DOSAAF aviation training organizations to organize and conduct physical training and mass sports. Specialists as a rule having a higher and secondary special education who treat their service responsibilities with great love and knowledge are chosen for this post. Lessons are held with flight crews and mass sports are conducted regularly and purposefully in most organizations.

Such aviation organizations include the aeroclubs of Groznyy, Kaluga, Vitebsk, Vladimir, Rostov, Kursk, Zaporozh'ye, and other cities. It is no accident that elimination of students due to both academic failure and health is rare and the aviation sportsman training program is completed with high quality and without flying accidents.

However, physical training for students and sportmen is still being understated in some aviation organizations. Cases occur where physical training is substituted by housekeeping details. The sports base of the Kostroma Aeroclub has been in a dilapidated state for many years, and physical training lessons are conducted haphazardly. We were astonished to discover that in an effort to reduce the administrative staff, the club could find no recourse other than to eliminate the post of deputy chief for physical training.

Physical training and mass sports are not much better at the Vyaz'ma Aeroclub. At one time it possessed a fabulous integrated athletic training camp satisfying all the requirements of normal organization and conduct of planned lessons. Now this camp is totally useless. Expensive training gear ((loping, gymnasticheskiye kolese)) have now formed a scrap heap, and tennis court fencing is now being used for rabbit cages.

The Saransk Aeroclub is building its athletic training camp too slowly. The athletic hall, which was opened quite recently, already requires overhaul due to poor care.

Shortcomings also exist in sports at the Karaganda, Voronezh, and other aeroclubs in the country.

Physical training for students and sportsmen has still not found its place in the fight for flight safety; the main link--the body's dependability, its readiness for overloads--is not accounted for in a number of cases. Sometimes pilot errors are analyzed without considering the pilot's physical fitness. The length of the flying career is defined apart from physical fitness rather than in interaction with it.

Physical lessons are an inherent part of the training and indoctrination of aviation sportsmen--future defenders of the motherland. This is why the chiefs of training and sports aviation organizations, and especially their assistants for physical training, must focus unweakening attention on them.

The training manual "Fizicheskaya Podgotovka aviatsionnykh spetsialistov DOSAAF" (Physical Training for DOSAAF Aviation Specialists) was published in 1976 as an aid to organizers of this important and necessary work. We believe that a special manual on individual physical training for flight personnel should be published as well. We also need to resolve the issue of creating special sports-psychophysiological complexes intended for training and diagnosis of the psychological readiness of flight personnel for flying missions.

All of this will doubtlessly help to significantly improve physical training for students and sportsmen at DOSAAF training and sports aviation organizations.

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